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Scarabs, Chronology, and Interconnections: Egypt and Palestine in the Second Intermediate Period

Ben-Tor, Daphna

Abstract: The present study deals with relations between Egypt and the Levant during the Second Intermediate Period, based primarily on contemporary scarabs from both regions. The potential contribution of scarabs for the historical reconstruction of the Second Intermediate Period, especially with regard to Egyptian/Levantine relations, has long been recognized. Yet the controversy over scarab typologies ruled out scarabs as a reliable historical source. This study proposes a new typology of scarabs of the first half of the second millennium BCE, which is now feasible owing to recent studies of ceramic assemblages from Egypt and the Levant. Based on these studies one can determine the relative and absolute dates of deposits in which scarabs and scarab impressions have been found in both regions, and substantiate the correspondence of the Second Intermediate Period in Egypt with the Middle Bronze Age IIB in the Levant. The principal methodological difference between the present study and previous scarab studies is its treatment of the Egyptian and Palestinian series as two separate groups. The geographical classification of the large corpus of scarabs, which previously had been dealt with as one entity, allowed for a systematic differentiation between Egyptian and Canaanite scarabs of this period and the establishment of separate stylistic and chronological typologies for each group. The historical conclusions presented in this study confirm the significance of scarabs as a primary source of information for reconstructing the history of the Second Intermediate Period in Egypt and the Levant.

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by

Susanne Bickel, Othmar Keel and Christoph Uehlinger

The author

Daphna Ben-Tor is the curator of Egyptian Archaeology at The Israel Museum, Jerusalem. Born in Jerusalem, she received a B.A. in Archaeology, M.A. and Ph.D. in Egyptology from The Hebrew University of Jerusalem. Her scholarly work focuses on scarabs of the first half of the second millennium BCE, mainly with regard to Egyptian/Levantine relations.

Among her publications: «The Relations between Egypt and Palestine in the Middle Kingdom as Reflected by Contemporary Canaanite Scarabs», *Israel Exploration Journal* 47 (1997) 162–189; «The Absolute Date of the Montet Jar Scarabs», in *Ancient Egyptian and Mediterranean Studies in Memory of W. A. Ward*, ed. L. H. Lesko, Providence, RI, 1998, 1–17; «Egyptian-Levantine Relations and Chronology in the Middle Bronze Age: Scarab Research», in *The Synchronisation of Civilisations in the Eastern Mediterranean in the Second Millennium B.C. II*, ed. M. Bietak, Vienna, 2003, 239–247. Her publications also include exhibition catalogues of the Israel Museum.

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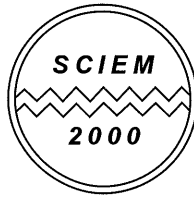
Scarabs, Chronology, and Interconnections

Egypt and Palestine in the Second
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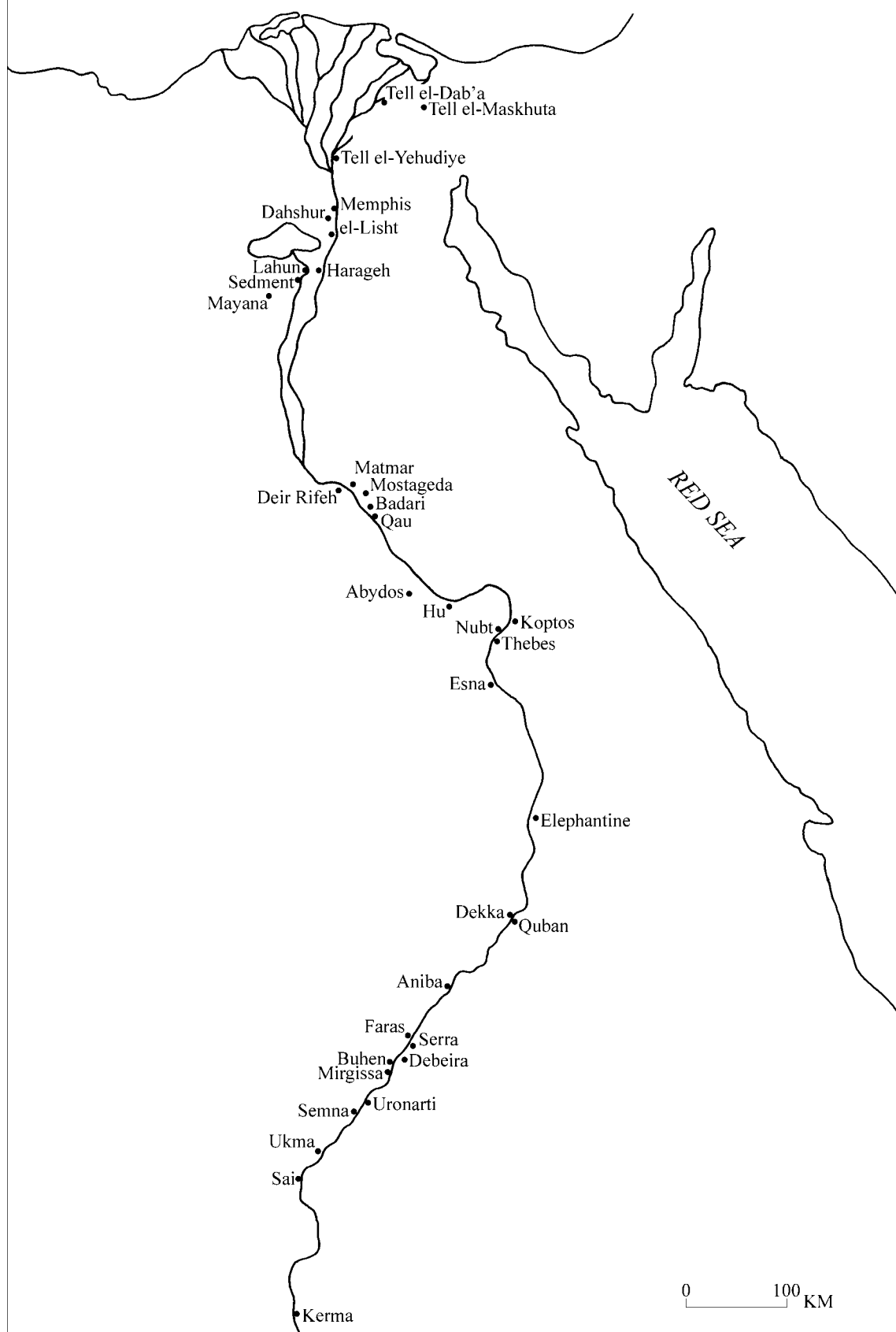
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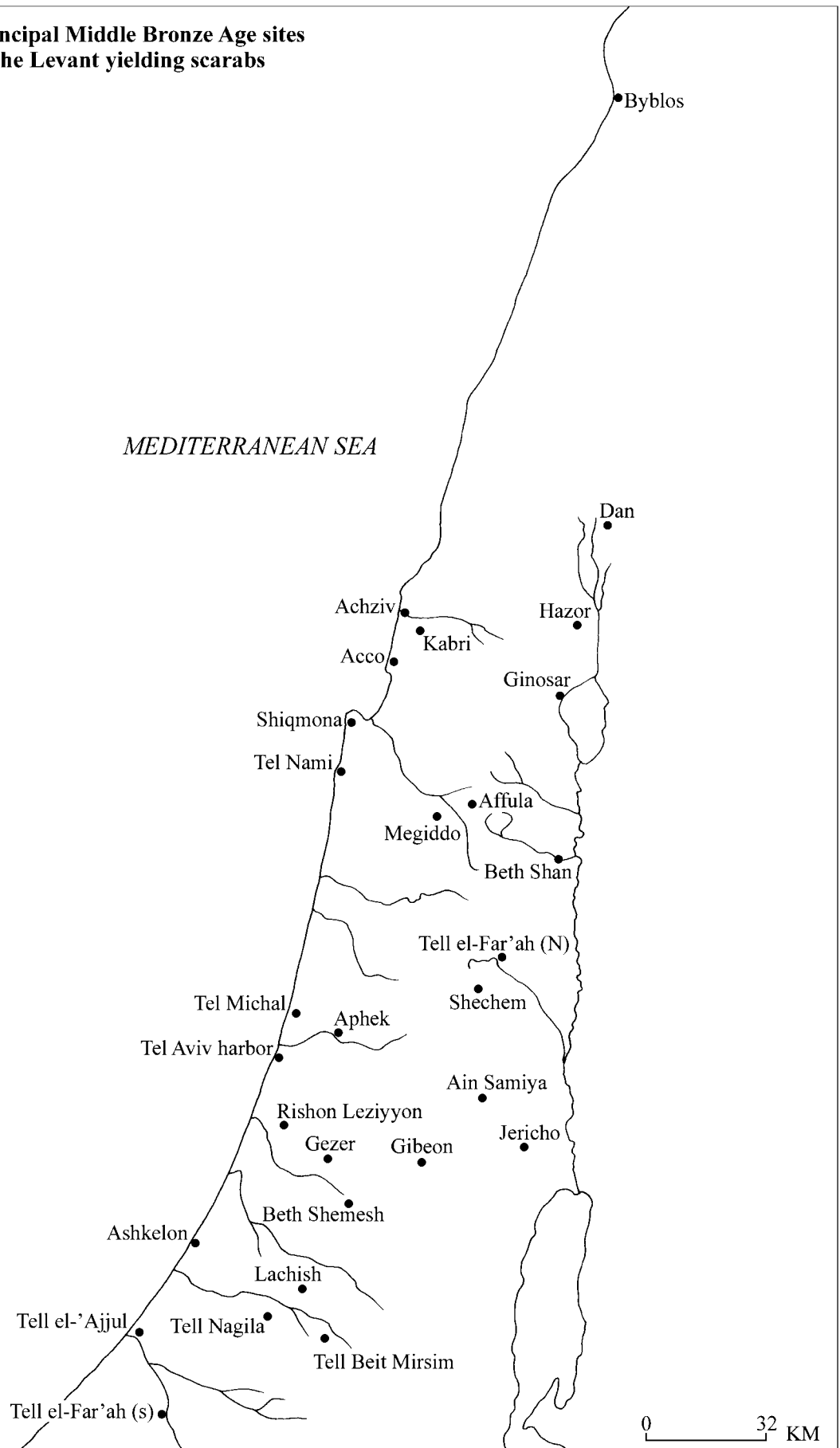
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Daphna Ben-Tor

Principal Middle Kingdom and Second Intermediate Period sites in Egypt and Nubia yielding scarabs and seals impressions



**Principal Middle Bronze Age sites
in the Levant yielding scarabs**



Introduction

The relations between Egypt and Palestine during the Second Intermediate Period are of special interest as this period saw the rule of a dynasty (or dynasties) of Canaanite origin in Egypt. These foreign rulers are often referred to in the literature as Hyksos, the Greek term quoted from Manetho's *Aegyptiaca* by Flavius Josephus in the late 1st century CE for the Egyptian *ḥꜥꜥꜣw-ḥꜥꜣwt* – rulers of foreign lands (Josephus, *Contra Apionem* i, 14; Redford 1970: 1-17; 1992: 98; 1997: 19-20).

The long debated origin of these rulers and the location of their capital were recently identified by archaeological evidence from the site of Tell el-Dab'a in the eastern Delta, which proved their Levantine origin, and the identification of their capital at that site (Bietak 1984a; 1991; 1994; 1996; 1997). The Canaanite origin of the Second Intermediate Period foreign rulers in Egypt was considered in earlier studies (Säve-Söderbergh 1951; Von Beckerath 1964; Van Seters 1966; Redford 1970; Ward 1976), but the historical background for their takeover of Egypt and the nature of their rule remained controversial for lack of conclusive evidence. The archaeological evidence at Tell el-Dab'a attests to a gradual infiltration and settlement of Canaanites at the site beginning in the late 12th Dynasty (ca. 1800 BCE), and to the presence of a highly Egyptianized Canaanite Middle Bronze culture throughout the Second Intermediate Period (Bietak 1984a; 1991; 1996; 1997; Bourriau 2000: 185-95). The important discoveries at Tell el-Dab'a offer a remarkable contribution to the historical reconstruction of the Second Intermediate Period in Egypt, particularly with regards to the relations between Egypt and the Levant (Weinstein 1992; 1996; Ward and Dever 1994: 74-87; Bietak 1984a; 1991; 1996; 1997; Ben-Tor 2003; 2004c; Holladay 1997; McGovern and Harbottle 1997; McGovern 2000; Oren 1997; Bourriau 2000; Cohen-Weinberger and Goren 2004).

One of the major contributions of this evidence concerns the long debated issue of the absolute chronology of the Middle Bronze Age phases in Palestine (Ward 1987; Weinstein 1992; 1996; Ward and Dever 1994; Beck and Zevulun 1996; Ben-Tor 1997: 163-64; Bietak 1997: 125-28; Dever 1997), which is now established based on the mixed ceramic assemblages found at Tell el-Dab'a (Weinstein 1992: 27; 1996: 60-61; Smith 1995a: 75-79, 81-90; Bietak 1997: 125; Bagh 2000: 26-27; Ben-Tor 2003: 243-44). The material culture of the Canaanite settlers in the eastern Delta displays a distinct similarity to the material culture found at Middle Bronze Age sites in Palestine (Bietak 1984a; 1991; 1997: 97-115; Holladay 1997). Moreover, a south Palestinian origin was suggested for the bulk of imported Canaanite jars found at Tell el-Dab'a, based on neutron activation analysis studies (McGovern and Harbottle 1997; McGovern 2000). The important implications of this evidence for the relations between Egypt and Palestine in the late Middle Kingdom and the Second Intermediate Period were noted in a number of studies (Weinstein 1992; 1996; Ward and Dever 1994; Bietak 1996; 1997; Ben-Tor 1997: 187-88; 2003; 2004a; Dever 1997; Holladay 1997; Oren 1997; Ryholt 1997: 103-116, 126-140). Yet, the Palestinian origin suggested for the Canaanite population at Tell el-Dab'a has recently been challenged on the basis of petrographic analysis of the Canaanite jars previously examined by neutron activation analysis; the former technique appears to support a northern Levantine origin for the bulk of the material (Cohen-Weinberger and Goren 2004). The results of the petrographic analysis support the initial position of the excavator who has argued for a northern Levantine origin for at least the first wave of Canaanite settlers at the site (Bietak 1996: 10-14; 1997: 97-100).

Considering the scarcity of textual sources from this period and the inconclusive archaeological evidence, which do not provide a coherent historical outline, many studies have relied on later sources of doubtful reliability (Redford 1970; 1997: 16-20; Ryholt 1997: 2-3; Schneider 1998). Among the few contemporary sources, the significance of the large number of scarabs from Egypt and the Levant was realized in many studies of this period (Stock 1942; Von Beckerath 1964; Givon 1974; 1976; 1978b; Ward 1976; 1987; Ward in Tufnell 1984: 162-73; Bietak 1984a: 53-57; Tufnell 1984; O'Connor 1985; Ryholt 1997; Krauss 1998). These studies however, encountered difficulties relating primarily to problems associated with establishing a reliable chronological typology of scarabs. Their historical conclusions are therefore inconclusive (Tufnell 1984; O'Connor 1985; Ward 1987; Ward and Dever 1994; Beck and Zevulun 1996; Weinstein 1996; Ryholt 1997; Krauss 1998; Ben-Tor et al 1999). The long history of scarab typological studies demonstrates that dating scarabs on the basis of royal-name scarabs, and criteria such as developments in design and the shape of features is inconclusive and unreliable, particularly for scarabs belonging to the first half of the second millennium BCE (Hornung and Staehelin 1976: 26-29; Ward and Dever 1994: 9-24; Ben-Tor 1997: 164-66; 1998). In some cases royal-name scarabs were produced after the reigns of the kings whose names they bear, many designs and features were long lived, and scarabs, being used primarily as amulets, could be kept as heirlooms for a long time (Williams 1977: 138; Kemp and Merrillees 1980: 41-42; Lilyquist 1993: 45-47). It was therefore realized that a reliable chronological typology must be based on relatively large scarab groups from clear archaeological contexts, and most recent studies of scarabs are based on this approach (Kemp and Merrillees 1980: 44-57; Tufnell 1984; O'Connor 1985; Ward 1987; Ward and Dever 1994; Keel 1995a; 1997; Ben-Tor 1997; 1998). However, even studies based on excavated groups did not establish a conclusive

chronological typology, and the absolute dates of many groups, as well as the historical conclusions based on them, have remained highly controversial (Bietak 1984a: 53-57; 1991: 482-85; Ward 1987; Ward and Dever 1994; Beck and Zevulun 1996; Weinstein 1996; Ryholt 1997: 34-65; Ben-Tor et al. 1999).

The great popularity and wide distribution of scarabs in both Egypt and Palestine during the first half of the second millennium BCE make them an important body of contemporary source material. Moreover, royal-name scarabs of this period constitute an exclusive source for many contemporary kings, particularly those bearing non-Egyptian names (Ward in Tufnell 1984: 162-73; Ryholt 1997: 40-52). Unlike royal-name scarabs bearing names of Middle Kingdom kings, which were frequently produced after the reigns of these kings and reflect their posthumous veneration (Ward 1971: 127-36; Kemp and Merrillees 1980: 41-42; Ben-Tor 2004b), the foreign rulers of the Second Intermediate Period were not considered as legitimate kings after their expulsion from Egypt. Their names are often absent in king-lists of later periods, and it is generally agreed that the production of posthumous royal-name scarabs of these kings is highly unlikely (Ward and Dever 1994: 10; Ryholt 1997: 3). A significant number of royal-name and private-name scarabs of this period were found in Middle Bronze Age sites in Palestine. Moreover, the large-scale production of scarabs in Middle Bronze Age Palestine, unparalleled in this region at any other period, is undoubtedly related to the large-scale settlement of Canaanites in the eastern Delta, and their subsequent domination of northern Egypt. Taking into account all the above, it is generally accepted that scarabs constitute one of the most informative contemporary sources for the Second Intermediate Period (Ryholt 1997), especially with regards to the relations between Egypt and Palestine (Tufnell 1984; Ward 1987; Ward and Dever 1994; Weinstein 1996; Ben-Tor 2003; 2004c).

Considering the significance of scarabs for the historical reconstruction of the Second Intermediate Period in Egypt, and Egyptian/Levantine relations during this period, the primary aim of this study is to establish a reliable scarab typology of the first half of the second millennium BCE. As argued elsewhere (Ben-Tor 2003; 2004a; 2004c), this is now feasible owing to recent studies of ceramic assemblages of the Middle Kingdom and the Second Intermediate Period, which allow us to determine the relative and absolute dates of deposits in which scarabs were found at many relevant sites (Arnold 1972; 1977; 1982; 1988; Bourriau 1981; 1987; 1990; 1997; Bietak 1984a; 1989; 1991; Seidlmayer 1990). The evidence provided by these studies, though limited to a broad archaeological definition of periods, offers criteria to distinguish between early Middle Kingdom, late Middle Kingdom, and Second Intermediate Period archaeological deposits in Egypt and Nubia, and thereby to establish a typology of excavated scarab series from these deposits (Ben-Tor 2003: 239-40; 2004c: 27). Moreover, the mixed deposits at Tell el-Dab'a allow us to determine the corresponding Middle Bronze Age deposits in Palestine that yielded scarabs, and establish their absolute dates (Ben-Tor 2003; 2004a; 2004c).

The primary sources used in this study are groups of already published scarab series from late Middle Kingdom and Second Intermediate Period deposits in Egypt and Nubia, and from Middle Bronze Age deposits in Palestine. These large scarab groups are divided into Egyptian and Palestinian series, since it has recently been shown that most of the scarabs found in Middle Bronze Age Palestine were produced locally (Schroer 1985; 1989; Keel 1989; 1994; 1995b; 2004; Ben-Tor 1997; 2003; 2004a; 2004c). The Egyptian and Palestinian corpora are further divided chronologically; the Egyptian excavated groups are divided into late Middle Kingdom and Second Intermediate Period series, and the Palestinian excavated groups are divided into early and late Middle Bronze Age series. The typologies of all four groups are based on the same stylistic classification of designs and features (below) in order to point out similarities and differences, distinguish locally produced scarabs and imports in both groups, and show mutual cultural influence in both regions. Treating each of the four groups separately is the only way to establish a reliable scarab typology of the first half of the second millennium BCE.

The four scarab typologies constitute the focus of this study, and they are presented in the four main chapters comprising this work. Nevertheless, it is the chronological, cultural, and historical implications of these scarabs which are the primary aim of this study. These include:

1. The beginning of the Second Intermediate Period in Egypt and the corresponding Middle Bronze Age phases in Palestine.
2. The historical and cultural implications of the initial importation of scarabs into Palestine and the beginning of local production of scarabs in this region.
3. The historical and cultural implications of the changes in the stylistic profile and the distribution of scarabs in both Egypt and in Palestine during the first half of the second millennium BCE.
4. Mutual cultural influences as reflected by imported scarabs and by the adaptation of particular motifs on Egyptian and Canaanite scarabs of this period.
5. The sequence and dating of foreign rulers recorded on royal-name scarabs based on the typologies proposed in this study.

6. The precise geographical origin of the Canaanite population in the eastern Delta and the foreign rulers who ruled over Egypt during the Second Intermediate Period.
7. The nature of the relations between Egypt and Palestine in the Second Intermediate Period, whether consisting of close contacts between two separate political and cultural entities, or reflecting Hyksos rule over southern Palestine.

The conclusions associated with the issues listed in nos. 1, 2, 6, and 7 above have been anticipated (see Ben-Tor 1997; 1998; 2003; 2004a; 2004b; 2004c), but those concerning issues 3, 4 and 5 could only be reached based on the detailed typological study presented below. It is interesting to note, however, that some of the conclusions reached in this study were not anticipated. These include:

1. The historical and cultural developments that generated the beginning of mass production of scarabs in Egypt in the late Middle Kingdom.
2. The complete absence of scarabs in Nubian cemeteries before the Second Intermediate Period and the cultural implications of this situation.
3. The end of the late Middle Kingdom sealing system with the collapse of the Middle Kingdom, and the lack of evidence for the continued use of scarabs as administrative seals in Second Intermediate Period Egypt.
4. The occurrence of 18th Dynasty intrusions among the late Middle Kingdom sealings at the fort of Uronarti in Lower Nubia, and their crucial implications for the absolute dating and sequence of Second Intermediate Period royal-name scarabs.
5. The dating of all royal-name and private-name scarabs bearing foreign names to the period assigned to the 15th Dynasty “the Hyksos”, and not to the period assigned to the pre-Hyksos 14th Dynasty.
6. The lack of evidence for the production of scarabs in Second Intermediate Period Egypt outside the eastern Delta until the final phase of the period.
7. The significant number of Egyptian Second Intermediate Period imported scarabs at Tell el-`Ajjul, and their rare occurrence elsewhere in Palestine, supporting the exceptional role of Tell el-`Ajjul in Egyptian/Levantine relations during the Second Intermediate Period.

The historical conclusions reached in this study confirm the significance of scarabs as a primary source of information for the reconstruction of the Second Intermediate Period in Egypt and the Levant; many of the issues considered as expected contributions of this study were fully or partially resolved. Nevertheless, an important issue remains unresolved, namely, the number and dynastic affiliation of the foreign rulers in the eastern Delta during the Second Intermediate Period. Considering the scarcity of monuments dating from this period, and the problematic nature of the archaeological contexts of Second Intermediate Period scarabs, the evidence provided by scarabs of this period is insufficient to resolve this issue.

The Stylistic and Chronological Typologies

The stylistic typology presented in this study follows the typology of designs and features devised by Tufnell and Ward (Tufnell 1975; 1984; Ward 1978a; 1987), and subsequently updated by Ward and Dever (Ward and Dever 1994).¹ That typology is based on detailed studies of all features of scarabs – designs, backs, heads, sides, and size, which have been proved significant, though not always of equal importance. The primary contribution of these scholars to the study of scarabs lies in their methodology of establishing a scarab typology that is based on excavated series. Their choice of source material for the Middle Kingdom and the Second Intermediate Period, mainly scarab series found in Middle Bronze Age sites in Palestine,² was justified considering the problematic nature of the archaeological contexts of most contemporaneous Egyptian excavated groups (below, introduction to chapter I). However, it resulted in two major flaws, which were recently pointed out (Ben-Tor 1997: 166):

1. The absolute dates proposed by these authors for the Middle Bronze Age phases in Palestine are based on a high chronology that can no longer be accepted.³
2. Their presumption that scarabs were primarily an Egyptian product, thereby hardly considering the occurrence of local Canaanite productions, and attributing geographical variations to chronological differences. As a result

¹ The back typology of Martin (1971: 4-5) and O'Connor (1985: 5) is occasionally used, mainly for the features of late Middle Kingdom scarabs.

² Though it includes also seal impressions from two Egyptian Middle Kingdom sites - the town of Kahun and the fort at Uronarti (Tufnell 1975; 1984: 6, 85-6).

³ It is argued below (introduction to chapter III) that the early Palestinian series should be dated to the early Second Intermediate Period in Egypt, beginning ca. 1700 BCE.

of these flaws, the chronological typology proposed by these authors, as well as their suggested development for particular motifs and designs, require a thorough revision.

In spite of these flaws, however, the Tufnell and Ward typology is the best one established so far for scarabs of the first half of the second millennium BCE (Ben-Tor 1997: 164-66). Furthermore, the exhaustive studies of these authors established a convenient basic stylistic typology, which is the most useful reference work for scarabs of this period (Keel 1995a; Ben-Tor 1998). Taking into consideration the flaws noted above, modifications in the Tufnell and Ward typology are necessary in order to establish the differences between the Egyptian and Canaanite series, the absolute chronology of both groups, the origin and development of particular designs, and mutual cultural influence. The first and most important of these modifications is to separate the series found in Egypt from those found in Palestine, and establish separate stylistic and chronological typologies. Each of these series is further divided into two main groups that are dealt with separately: The Egyptian series are divided into Late Middle Kingdom and Second Intermediate Period series, and the Palestinian series are divided into early and late Middle Bronze Age series. These divisions are based on the archaeological contexts of the excavated series used in the study.

The studies of Tufnell and Ward that are relevant to the period discussed here include the study of the seal impressions from Kahun and Uronarti (Tufnell 1975), and the studies of scarabs from Middle Bronze Age sites in Palestine (Tufnell 1973; 1984; Ward 1987; Ward and Dever 1994). Ward's study of First Intermediate Period and early Middle Kingdom scarabs (Ward 1978a)⁴, though dealing with earlier periods, is important in reference to the late Middle Kingdom series, which occasionally include earlier examples and often show developments of the early designs (Ben-Tor 2003: 240-41). The stylistic typology presented in these studies refers to the large corpus of scarabs of the first half of the second millennium BCE as a whole. Therefore, in order to establish the stylistic differences between Egyptian and Canaanite scarabs, this study takes into consideration the source material used in each of these studies. The stylistic typology for the late Middle Kingdom Egyptian series is based primarily on Tufnell's study of the seal impressions from Kahun and Uronarti, while the typology for the Canaanite Middle Bronze series is based primarily on the above noted studies of the Palestinian series. The stylistic typology for the Second Intermediate Period Egyptian series, which includes both Egyptian and Canaanite scarabs, is based on all the above studies. The Egyptian series are discussed first, in order to establish their stylistic and chronological typology, thereby forming a basis for comparison with the Palestinian series (see note 4).

Finally, it is important to note that every typology is bound to be somewhat artificial, and based on subjective observations. The Tufnell and Ward typology reflects those authors' conclusions with regard to the absolute chronology, sequence, and development of the scarabs of this period, which are not always accepted in this study. Therefore, the typology presented in the present study, although based on the Tufnell and Ward typology, is not always identical to the latter in attributing particular scarabs to particular designs, and it occasionally proposes different subtypes for certain design classes.

⁴ The absolute dates proposed by Ward for the early scarabs assembled in his 1978 study (Ward 1978a: 15-16) were recently challenged as being too high (Seidlmayer 1990: 185-99; Wiese 1996: 16-18, 43-48). The chronology proposed by Seidlmayer is of particular significance with regard to Ward's period 3, which was dated by Ward ca. 2100-2025 BCE, but according to Seidlmayer's chronology dates from the late 11th Dynasty and thus belongs in the early Middle Kingdom. The early 12th Dynasty date of period 4 was argued in Ward and Dever 1994: 89-93 and in Ben-Tor 1998.

Chapter I

Typology of Scarabs found in late Middle Kingdom⁵ contexts in Egypt and Nubia

The scarabs and seal impressions discussed in this chapter reflect the beginning of mass production of scarabs in Egypt. This is clearly indicated by the large number of examples displaying typical late Middle Kingdom characteristics, compared with the notably smaller corpus of First Intermediate Period and early Middle Kingdom examples (Ward 1978a: 2; Ward and Dever 1994: 117; Ben-Tor 1998: 14). The large group defined here as Late Middle Kingdom scarabs originated in archaeological contexts ranging from the late 12th Dynasty well into the 13th Dynasty, frequently continuing into the early Second Intermediate Period. Recent studies of Middle Kingdom ceramic assemblages have established a reliable sequence of Middle Kingdom archaeological deposits, as well as regional variations (Arnold 1972; 1977; 1982; 1988; Kemp and Merrillees 1980; Bourriau 1981; 1987; 1990; 1991a; 1991b; 1991c; 1997; Seidlmayer 1990). However, the difficulty in determining the absolute dates of late Middle Kingdom archaeological deposits was noted in a number of studies (Williams 1977a; Lilyquist 1979; 1993; Kemp-Merrillees 1980: 39-57, 79-102; Bourriau 1987; 1991c; Smith 1995a: 51-80; Fay 1996: 43-44). These studies show that the absolute dates established by early excavations are frequently unreliable, and they point out the common reuse of tombs during the Middle Kingdom, the frequent occurrence of mixed deposits, and regional as well as status variations. They further show that the evidence is usually insufficient to distinguish between late 12th and 13th Dynasty deposits, and frequently between late Middle Kingdom and early Second Intermediate Period deposits in most relevant sites.

The earliest archaeological deposits in which late Middle Kingdom type scarabs were found are dated to the late 12th Dynasty (Kemp and Merrillees 1980: 40-50), most probably sometime between the reigns of Senwosret III and Amenemhat III, ca. 1850 B.C. This period saw significant cultural and political developments, which are attested in almost every aspect of civil and religious practice (Hornung and Staehelin 1976: 50; Bourriau 1988: 39-41; 1991c). The centralization of power during the reign of Senwosret III resulted in the spread of material culture from the residence at *iti-t3wy* (near the modern village of el-Lisht), which is reflected in increasing cultural homogeneity (Bourriau 1991c: 7-11). This period also saw developments in funerary beliefs (Hornung and Staehelin 1976: 50; Franke 1991: 55), which are clearly reflected in changes in the burial customs. New types of objects appear in tombs, constituting relatively cheap and easily accessible apotropaic devices such as magical figurines, model offerings, magical wands and rods, and new types of amulets (Bourriau 1991c: 8-16). It is therefore most likely that the initial mass production of scarabs occurred during this period, when they are first attested as the dominant form of funerary amulets (Hornung and Staehelin 1976: 50), and when identical types are found throughout Egypt and Lower Nubia.

Administrative changes attributed to this period most probably account for the beginning of large-scale use of scarabs as seals, which is also first attested in the late 12th Dynasty⁶ and continues throughout the 13th Dynasty (Williams 1977b: 136; Quirke 1986: 109; Gratien 2001; Smith 2001; Wegner 2001). The use of scarabs for sealing is attested already in the early Middle Kingdom (Keel 1995a: 269-70; Wegner 1995; Von Pilgrim 2001: 162), however, there is no evidence for large-scale usage reflecting a centralized administration before the late Middle Kingdom (Johnson 1977: 141; Williams 1977b: 136-37; Smith 1990: 197). The distribution of late Middle Kingdom type scarabs and seal impressions throughout Egypt and Lower Nubia, both as funerary amulets and as seals used for the central administration, indicates that the stimulus for the mass production of scarabs came from the residence at *iti-t3wy*. The initial large-scale production of royal-name and private-name scarabs, which is also attributed to the late 12th Dynasty (Martin 1971: 3; Hornung and Staehelin 1976: 50; Johnson 1977: 141; Ben-Tor 2004b), further supports the initiation of the mass production of scarabs in the residence. The late Middle Kingdom date of most private-name scarabs assembled in Martin's corpus (Martin 1971: XII) is indicated by their designs and features (below, §IA7) as well as by the particular titles they bear (Quirke 1986; 2004: 178-79).

The original amuletic function of scarabs was convincingly argued by Ward (1978: 43-47) and by Hornung and Staehelin (1976: 13-23), and the apotropaic, or otherwise beneficial nature of most motifs attested on late Middle Kingdom scarabs supports the primary amuletic function of scarabs during this period. The use of scarabs for sealing, which became one of the most distinctive late Middle Kingdom administrative practices (Smith 1990: 197-99;

⁵ The term "late Middle Kingdom" in this study refers to the period ca. 1850-1700 BCE following Quirke and Fitton 1997: 423. This period includes the late 12th Dynasty, which ends ca. 1795 BCE (Kitchen 1996: 11), and the 13th Dynasty to the reign of Merneferre Ay (Kitchen 1996: 11; Ryholt 1997: 197). It is argued below (introductions to chapter II and III) that the Second Intermediate Period begins ca. 1700 BCE.

⁶ I am grateful to Stephen Quirke for drawing my attention to changes in the writing style in the el-Lahun temple business papyri by the end of the second decade of Senwosret III/first decade of Amenemhat III, indicating that the administration is thoroughly overhauled.

Von Pilgrim 1996: 234-74; Foster 2001; Gratien 2001; Smith 2001; Wegner 2001),⁷ suggests that the administrative function of scarabs became well established by the late Middle Kingdom. The large-scale use of scarabs as amulets and as sealing devices for the central administration seems to have begun simultaneously, and the evidence suggests that modern separation between religious and administrative function was not as distinct for the Egyptians. This is indicated by the fact that scarabs used in the administration during this period are identical to those found in tombs, including private-name scarabs with funerary epithets, and by the random selection of scarabs for sealing, regardless of their designs and inscriptions (Williams 1977b: 136-38; Ben-Tor 1994: 8).⁸ The evidence clearly implies, as correctly noted by Williams (1977b: 138), that scarabs of the late Middle Kingdom, whether originally intended for use as seals or amulets, were likely to be reused for a function not originally intended, and that their use became interchangeable.⁹

The administrative and religious practices established in the late 12th Dynasty continued throughout the late Middle Kingdom, well into the 13th Dynasty (Kemp and Merrillees 1980: 88; Bourriau 1988: 53-4; 1991c; Quirke 1991: 123; Smith 1995a: 69-75). Even the break of the central rule at el-Lisht in the advanced 13th Dynasty is not attested in profound cultural changes outside the eastern Delta (Bourriau 1991c: 16), but in gradual changes that vary in different regions (below, §IIa-§IIb). The cultural continuity is also reflected in the distribution of late Middle Kingdom type scarabs throughout the Nile valley during the reign of the 13th Dynasty at *ḥt-t3wy*, and their continuation into the early Second Intermediate Period (Hayes 1953: 191; Williams 1977b: 136-37; Kemp and Merrillees 1980: 44-57, 87-102; Smith 1995a: 51-80; Wegner 1998: 3-4, 37-41; S. Allen in Ben-Tor et al. 1999: 55-58).

The difficulty in distinguishing between late 12th and 13th Dynasty scarabs remains largely unresolved due to the mixed deposits in which late Middle Kingdom scarabs and seal impressions were found (Tufnell 1975: 68-70; Kemp-Merrillees: 48-56; Ben-Tor 1994: 8-10; Ward and Dever 1994: 21). Even recently published groups dated by the pottery assemblages associated with them – the sealings from the settlement associated with the mortuary complex of Senwosret III at Abydos (Wegner 1998) and the sealings from the Middle Kingdom settlement at Elephantine (Von Pilgrim 1996: 234-74) – did not resolve this problem. The Abydos published seal impressions include only those made by official seals of administrative units and private-name scarabs (Wegner 1998: 32-44). The excavator states that sealings were found in both disturbed debris and in situ floor deposits, and notes that the number of sealings from floor strata "is far in the minority relative to those from secondary and disturbed contexts" (Wegner 1998: 32). The chronological distribution of the sealings at Abydos ranges from the end of the reign of Senwosret III well into the 13th Dynasty and into the Second Intermediate Period (Wegner 1998: 3, 37-41; 2004: 231-32), a distribution that is in agreement with the cultural continuity noted above.

The chronological distribution of the sealings at Elephantine ranges between strata 15-VX (11th Dynasty) and 11-XI (Second Intermediate Period). The bulk of the material is, however, attributed to stratum 13-XIII (Von Pilgrim 1996: 252, and Fig. 106), also in the case of sealings made by private-name scarabs (Von Pilgrim 1996: 253, Fig. 107). Von Pilgrim dates stratum 13-XIII to the late 12th Dynasty (Von Pilgrim 1996: 15). Considering the abrupt decline in the distribution of the sealings after stratum 13-XIII (Von Pilgrim 1996: 253), the bulk of the sealings dates according to Von Pilgrim to the late 12th Dynasty. Von Pilgrim correctly attributes the notable decrease in the distribution of sealings in stratum 12-XII to changes in the central administration of the state, and does not consider it a local phenomenon (Von Pilgrim 1996: 253). According to his dating of stratum 13-XIII, this change occurred in the early 13th Dynasty, a date which does not conform with the cultural and administrative continuity attested throughout Egypt and Lower Nubia through the late Middle Kingdom (Smith 1995a: 69-80), and is therefore highly unlikely. A break in the central administration is more likely to be attested at Elephantine in the advanced 13th Dynasty, as a result of the abandonment of the residence at el-Lisht (Habachi 1977: 1121-22). Dorothea Arnold, who examined the published pottery from the site at my request, dates stratum 13-XIII from the late 12th Dynasty well into the 13th Dynasty. This conclusion was confirmed by Teodozja Rzeuska, who is currently working on the publication of the Middle Kingdom pottery from the site.¹⁰ Moreover, seal impressions made by official seals and private-name scarabs bearing the names of *imny-snb* and *ḥ^c-ḳ3w-r^c-snb* (Von Pilgrim 1996: Fig. 98: 1-3,

⁷ The administrative function of scarabs is rarely attested during the Second Intermediate Period (below, § IIa), and the New Kingdom (Randall-Maciver and Woolley 1911: 117, Pl. 41: 10915, 10917, 10921; Hayes 1951; Bietak 2004).

⁸ For a different view see Wegner 2001: 93-97.

⁹ The original administrative function of particular types of late Middle Kingdom official seals is clearly indicated by archaeological evidence attesting to their exclusive administrative use (Ben-Tor 1994: 8), and by their inscriptions, which frequently include the word "seal" and always bear names of administrative units (Martin 1971: Pls. 43-45, 47: *passim*). However, objects of identical form bearing only private names and titles, sometimes with funerary epithets (Martin 1971: Pl. 43: 2-3, Pl. 44: 5, 10, 15, 18, 24, Pl. 45: 4), support the interchangeable function of amulets and seals in the late Middle Kingdom.

¹⁰ I am very grateful to Dorothea Arnold and Teodozja Rzeuska for their generous assistance with the Elephantine material and for their very helpful remarks.

50-51, 53-54) were found in deposits 17a, 53a,b, 55a-c (Von Pilgrim 1996: 312), which are attributed to stratum 13-XIII (Von Pilgrim 1996: 304, 308-9). These high officials are usually dated to the late 12th Dynasty (Habachi 1985: 51, 56, 149-51; Von Pilgrim 1996: 251); however, Dorothea Arnold and Marsha Hill date these officials' statues from the sanctuary of Heqaib (Habachi 1985: Pls. 61-66, 81-85) to the 13th Dynasty on stylistic grounds.¹¹

Considering the importance of the Elephantine material for the typology of Middle Kingdom design scarabs, Dorothea Arnold and this author asked Von Pilgrim for more information on the sealing deposits and on the pottery assemblages from the site. He kindly replied, explaining in a detailed letter¹² that the pottery published so far includes only vessels found in situ in houses, which constitute a small part of the pottery from the site. He further discusses the difficulty in associating occupation levels with the deposits of sealings, which in most cases constitute secondary trash deposits, sometimes piled up over a long period of time (see also Von Pilgrim 1996: 254-61). He also states that the architectural levels sometimes include two or more settlement levels that are not always possible to distinguish, nor it is always possible to determine if the sealings are contemporary with a settlement level or were dumped there after it was abandoned. Some cases pose other problems, as for example deposit 20a-b, the largest deposit, including more than 30% of the sealings, which constitutes a filling in the foundation of a tower (H 85) in building H 84; Von Pilgrim concludes that this filling comprises a trash deposit brought in from other locations at the site (Von Pilgrim 1996: 254).

Some of the Elephantine sealings display typical early Middle Kingdom designs,¹³ which also occur on the Montet Jar scarabs, seal impressions from Abu Ghalib, and other examples presented in Ward 1978a (below). Their distribution in the Elephantine deposits is not restricted to strata 14-XIV and 15-XV of the early Middle Kingdom, however, but ranges between strata 15-XV and 13-XIII, displaying a majority in the latter.¹⁴ More problematic is the occurrence of designs so far attested only in late Middle Kingdom contexts throughout Egypt and Nubia¹⁵ in deposits attributed by Von Pilgrim to stratum 15-XV of the late 11th – early 12th Dynasty. The most problematic among the latter is a sealing stamped by a typical late Middle Kingdom private-name scarab (Von Pilgrim 1996: Fig. 98: 285).

The problematic nature of the deposits at Abydos and Elephantine and the contexts of most late Middle Kingdom scarabs and seal impressions, make the distinction between late 12th and 13th Dynasty scarabs extremely problematic. Moreover, as a result of the common reuse of scarabs during this period, so-called heirloom scarabs are frequently found in contexts that are significantly later (Ben-Tor 1994: 9-10; 1997: 166). It is therefore not possible to define the group here under discussion more accurately than "late Middle Kingdom".¹⁶ Since late Middle Kingdom scarabs and seal impressions come from sites in which late Middle Kingdom deposits continue well into the 13th Dynasty, it seems reasonable to assume that most of them date from the later phases of occupation – in the 13th Dynasty.¹⁷ This has been noted in the case of sealings, which are regularly discarded, where it is the latest groups that usually survive (S. Allen in Ben-Tor et al. 1999: 55-58), and in the case of the large number of late Middle Kingdom reused tombs (Kemp and Merrillees 1980: 39-50; Williams 1977a: 42-43, 51; Bourriau 1987: 49-52; Lilyquist 1993: 45-46). However, considering the fact that sites in which late Middle Kingdom scarabs and sealings were found include late 12th Dynasty deposits, and the common reuse of scarabs during the Middle Kingdom (Williams 1977b: 136-38), late 12th Dynasty examples are most probably included in many of these deposits (Ben-Tor 1997: 166). Moreover, isolated early Middle Kingdom examples are also attested in most groups (below).

The designs and features of scarabs and seal impressions from late Middle Kingdom archaeological contexts are also found on many scarabs from museums and private collections around the world. The archaeological contexts of the latter are usually lost; however, their designs and features strongly argue for a late Middle Kingdom date (below, §IB4, §IB5). Many of the designs found on late Middle Kingdom scarabs developed from those occurring on early Middle Kingdom scarabs (Ward 1978a: Pls. 7-15; Ben-Tor 1998), which predate the mass production of scarabs and thus constitute a much smaller group (Ward 1978a: 2; Ward and Dever 1994: 117; Ben-Tor 1998: 14). The numerous variations and developments of the early designs that occur on late Middle Kingdom scarabs reflect the mass production of scarabs during this period.

¹¹ I wish to express my gratitude to both Dorothea Arnold and Marsha Hill for examining these statues and for their generous help.

¹² Sent from Cairo on 13.1.1998, for which I express my sincere gratitude.

¹³ E.g. Von Pilgrim 1996: Figs. 101-104: 19, 70, 85, 135, 144, 178, 209, 211, 217, 225, 242, 263, 293, 296, 318, 331.

¹⁴ This phenomenon also occurs elsewhere, reflecting the use of so-called heirloom scarabs for sealing (below).

¹⁵ E.g. Von Pilgrim 1996: Figs. 98-99, 101-102: 210, 226, 227, 228, 285, 360.

¹⁶ The exceptions are the so-called Sobkhotep group and scarabs displaying the same features (below, §IB2-4).

¹⁷ See also Smith 1995a: 70.

Although reflecting the beginning of mass production of scarabs in Egypt, late Middle Kingdom scarabs from clear archaeological contexts are extremely rare, and the number of published groups is notably small. Scarabs of this period were found mainly in cemeteries, indicating their common use as funerary amulets. Seal impressions were found in administrative units of settlements, forts, and royal funerary complexes, attesting to the large-scale administrative use of scarabs, as seals, during this period. The popularity of scarabs in modern antiquities trade of the 19th and early 20th century caused large-scale plundering of Middle Kingdom cemeteries, and therefore only a handful of small groups were found in archaeological excavations. Consequently, most of the excavated series discussed in this chapter comprise seal impressions.

The late Middle Kingdom excavated series discussed in this chapter include seal impressions from the town of Kahun (Petrie 1890: Pl. 10; Petrie 1891: Pls. 8-10; Petrie, Brunton and Murray 1923: Pls. 64-65; Tufnell 1975: Figs. 2-12), the second-cataract fort of Uronarti (Reisner 1955: Figs. 1-16; Tufnell 1975: Figs. 2-12), the town of Elephantine (Von Pilgrim 1996: Figs. 98-104), the town of Nubt (Petrie and Quibell 1896: Figs. 20-21), the settlement associated with the mortuary complex of Senwosret III at Abydos (Wegner 1998: Figs. 16-20), and the second-cataract fort of Mirgissa (Dunham 1967: Figs. 9-12; Gratien 2001: Figs. 2-7, 12). The scarabs discussed here come from the cemetery at Harageh (Engelbach 1923: Pls. 20-21, Kemp and Merrillees 1980: 40, Fig. 18) and from the north pyramid cemetery at el-Lisht.¹⁸

Table 1 – Principal Egyptian sites yielding scarabs and seal impressions of the late Middle Kingdom series (arranged north to south)

Site	Middle Kingdom occupation	Notes
el-Lisht	North pyramid cemetery dating from Amenemhat I through the 13 th Dynasty, probably continuing into the Second Intermediate Period (Kemp and Merrillees 1980: 4-6; Arnold et al. 1995: 15).	The main period of use of the cemetery was in the late 12 th and 13 th Dynasties (Bourriau 1991c: 8). The number of 13 th Dynasty royal-name, private-name and design scarabs argues for a 13 th Dynasty date for the bulk of the scarabs.
Kahun	Town dating from Senwosret II through the 13 th Dynasty, continuing into the Second Intermediate Period when a major decline is indicated (Kemp and Merrillees 1980: 79-102).	The archaeological evidence does not allow a distinction between 12 th and 13 th Dynasty contexts, but the close stylistic similarity between the Kahun and Uronarti sealings suggests a 13 th Dynasty date for the bulk of the Kahun sealings (see also Smith 1995a: 70).
Harageh	Middle Kingdom cemetery dating from Senwosret II to a point close to the onset of Hyksos rule, i.e. between ca. 1890 and 1660 BCE (Kemp and Merrillees 1980: 39-57).	The main period of use of the cemetery was in the late 12 th and 13 th Dynasties (Bourriau 1991c: 8). The collection of scarabs seems consistent with this period (Kemp and Merrillees 1980: 50).
South Abydos	Settlement associated with the mortuary complex of Senwosret III, dating from shortly after his reign through the 13 th Dynasty, continuing into the Second Intermediate Period (Wegner 1998: 3-4, 40-41).	Significant 13 th Dynasty activity is attested at the settlement (Wegner 1998: 37-41). The 13 th Dynasty royal-name sealings (Wegner 1998: 37) and some of the private-name sealings ¹⁹ suggest a 13 th Dynasty date for the bulk of the sealings.

¹⁸ For the time span of the cemetery from Amenemhat I through the 13th Dynasty and into the early Second Intermediate Period see Arnold et al. 1995: 15. The main period of use of the cemetery is attributed to the late 12th and 13th Dynasties (Bourriau 1991c: 8). The great majority of the scarabs originated in debris and in reused tombs, and their archaeological contexts therefore cannot be used to date them more accurately than "late Middle Kingdom". I wish to express my sincere gratitude to Geoffrey Martin, who is currently working on the publication of these scarabs, and to Dorothea Arnold of the Metropolitan Museum of Art, for their kind permission to include the el-Lisht scarabs in this study. I also wish to thank Susan Allen for her generous help in scanning the drawings of these scarabs for this study.

¹⁹ Compare Wegner 1998: Fig. 19: 7 with Martin 1971: nos. 575-588, pl. 23: 12-22, and Wegner 1998: Fig. 19: 8 with Martin 1971: nos. 1547-1556, Pl. 22: 1-8. All examples presented by Martin display back type 6 (below, §IB 2-4).

Site	Middle Kingdom occupation	Notes
Nubt	Middle Kingdom remains of a town, temple, and tombs (Petrie and Quibell 1896: 66-67). The precise time span of the Middle Kingdom occupation at the site is uncertain, but according to the excavators the pottery is the same as that found at Kahun (Petrie and Quibell 1896: 66).	Most sealings from the site display typical late Middle Kingdom designs (Petrie and Quibell 1896, Pl. 80: passim). A 13 th Dynasty royal-name scarab (Petrie and Quibell 1896, Pl. 80: 19) suggests occupation in the 13 th Dynasty.
Elephantine	Settlement dating from the 11 th Dynasty through the 13 th Dynasty, continuing into the Second Intermediate Period (Von Pilgrim 1996: 28-30, 125).	The distribution of the sealings ranges between stratum 15/VX (late 11 th -early 12 th Dynasty) and 11/XI (17 th Dynasty), with a pronounced majority in stratum 13/XIII (Von Pilgrim 1996: 252-53) of the late 12 th and 13 th Dynasties (above, pp. 7-9).
Mirgissa	Middle Kingdom fort probably from Amenemhat II/Senwosret II through the 13 th Dynasty, continuing into the Second Intermediate Period (Smith 1995: 67-69, 126-32).	Activity at Mirgissa fort in the advanced 13 th Dynasty is attested by sealings at Uronarti stamped by official seals from Mirgissa fort, indicating trade between the two forts at that time (Smith 1995: 71).
Uronarti	Middle Kingdom fort from Senwosret III to the advanced 13 th Dynasty/early Second Intermediate Period (Smith 1995: 71; Allen in Ben-Tor et al. 1999: 55-58).	The sealings represent the final administrative cycle of the Middle Kingdom occupation of the fort in the advanced 13 th Dynasty/early Second Intermediate Period (Allen in Ben-Tor et al. 1999: 56-57).

The stylistic typology presented in this chapter includes both designs and features (backs, sides and heads) of late Middle Kingdom Egyptian scarabs. The typology of the designs is based on the one presented in Tufnell's study of the seal impressions from Kahun and Uronarti (Tufnell 1975), which comprise a typical corpus of Egyptian late Middle Kingdom designs. The typology of the features is based on the one established by Tufnell and Ward (Tufnell 1984: 31-38) and updated by Ward and Dever (1994: 162-65), and on the back typology established by Martin (1971: 4-5) and O'Connor (1985: 5). Considering the much larger corpus of excavated seal impressions compared with scarabs, the design typology of the late Middle Kingdom series is based on a more extensive and reliable body of source material than the one available for the features typology. The design typology is therefore presented first so it can be used in reference to design scarabs of uncertain context to establish the features typology.

Tufnell and Ward point out the chronological implications of the scarabs' length, but note that it must be employed only in conjunction with other features, and that it cannot be used to determine the position of individual scarabs (Ward 1978a: 20-22; Tufnell 1984: 28; Ward and Dever 1994: 125). The significance of average length of scarabs as a chronological indicator for particular periods is reflected in the apparent gradual increase in scarab length from the First Intermediate Period to the late Middle Kingdom (Ward 1978a: Pls. 1-15; Tufnell 1975: Figs. 2-12). However, both Tufnell and Ward are aware of exceptional individual examples, and of the minor role of scarab length for the late Middle Kingdom and the Second Intermediate Period, when significant variations are attested. Scarabs' length will therefore be considered in this study only in cases when its chronological or geographical implications can be clearly shown.

§IA. Typology of Designs

Tufnell categorized the designs on the seal impressions from Kahun and Uronarti under 10 design classes²⁰ (Tufnell 1975: 70-74; Figs. 2-11), which are further divided into subclasses, reflecting particular variations. Some modifications to the design classes established by Tufnell are proposed in this study, due to different considerations of the chronological or geographical significance of certain variations. Moreover, the common occurrence of mixed designs on late Middle Kingdom scarabs, which is clearly reflected in the seal impressions from Kahun and Uronarti, makes any attempt to establish a clear-cut stylistic typology problematic. As Tufnell's study makes clear, many examples can be attributed to more than one design class.²¹ Therefore, in order to simplify the typology, the designs are categorized in this study according to their dominant motifs.

§IA 1. Design class 1 – Linear patterns

Design class 1 was established by Ward to describe five typical designs of First Intermediate Period – early Middle Kingdom scarabs (Ward 1978a: 47-54, Pls. 1-8). However, most of the early designs occurring in this group are not found on late Middle Kingdom scarabs (Tufnell 1975: 70), with the exception of design class 1E - floral motifs (Ward 1978a: 53-4).

§IA 1a. Design class 1E – Floral motifs

Ward includes design class 1E among First Intermediate Period designs that continue on as characteristic of Middle Kingdom scarabs (Ward 1978a: 53-4). He also notes that the design is usually combined with other designs on Middle Kingdom scarabs and seal impressions, as can be seen in examples from Kahun and Uronarti categorized under this design class by Tufnell (1975: Fig. 2). The latter reflect the common mixture of designs on Middle Kingdom scarabs. It can be shown that most designs presented in Tufnell 1975, Fig. 2 can also be categorized under other design classes, such as design class 2 (**Pl. 1: 1-5**), or design class 3 (**Pl. 1: 6-30**). Furthermore, in most cases the other designs constitute the dominant motif on the scarab's base.

The floral motifs categorized under design class 1E, both in the First Intermediate Period and early Middle Kingdom series (Ward 1978a, Pls: 7-8), and in the late Middle Kingdom series (Tufnell 1975: Fig. 2), comprise primarily papyrus plants, and a small number of lotus flowers. The most common floral motif categorized by Ward under design class 1E is a three-stem papyrus plant constituting one straight stem flanked by two out-curved stems (Ward 1978a: 53). This motif is common on First Intermediate Period and early Middle Kingdom scarabs (Ward 1978a: Pls. 7-8) and continues into the late Middle Kingdom series, where it is dominant among the floral motifs categorized by Tufnell under design class 1E (Tufnell 1975: 70, and Fig. 2: 22-57). Tufnell (1975: 70-71) divides the late Middle Kingdom variations of design class 1E into three subclasses (1E1, 1E2, and 1E3) according to the number of floral stems found in the design – from one to three respectively. This division has no chronological or other significance, however, as the three variations occur already on early Middle Kingdom examples (Ward 1978a: Pls. 7-8: 1E1 - nos. 208-9, 1E2 - nos. 212-13, 215-16, 222-23, 1E3 - passim), and motifs displaying three stems constitute a distinct majority in both series. This study therefore does not use Tufnell's proposed subclasses for design 1E.

Ward argues (1978: 53) that the floral motifs comprising design 1E seem to have developed primarily for scarabs, since they are not found on earlier design amulets. Ward's statement is corroborated by the fact that the designs associated with floral motifs on the early scarabs fit perfectly the shape and small size of most First Intermediate Period and early Middle Kingdom scarabs. Most of the early examples presented by Ward (1978: Pls. 7-9) display the floral design as the sole or dominant motif, only rarely occurring with other designs.²²

The three-stem papyrus plant is sometimes displayed in the form of the hieroglyph *h3* (Gardiner 1964, sign list: M16) on early Middle Kingdom examples (Ward 1978a: Pl. 7: 197-8), and more frequently on late Middle Kingdom examples (**Pl. 1: 13, 17, 22, 25, 27, 28, 37**). A combination of the decorative motif and the hieroglyph are also found (**Pl. 1: 25, 27**). Moreover, the late Middle Kingdom impressions from Kahun and Uronarti show that the three-stem papyrus motif is associated primarily with hieroglyphs and symbols comprising Tufnell's design class 3: Egyptian signs and symbols (Tufnell 1975: 71-72, Figs. 4-6).

²⁰ These classes were used by Tufnell and Ward for the entire corpus of design scarabs of the first half of the second millennium BCE (Ward 1978a; Tufnell 1984: 115-40). Design class 11 refers to royal-name and private-name scarabs.

²¹ E.g. Tufnell 1975: Fig. 2: 4 and Fig. 5: 245; Fig. 2: 17 and Fig. 3: 147; Fig. 2: 43 and Fig. 4: 202; Fig. 2: 53 and Fig. 6: 299; Fig. 2: 54 and Fig. 4: 237; Fig. 3: 91 and Fig. 4: 229; Fig. 3: 94 and Fig. 7: 330; Fig. 3: 99 and Fig. 8: 331; Fig. 4: 209 and Fig. 8: 364.

²² E.g. Ward 1978a: Pls. 8, 9: 218-20, 244-45. An exception is the combination of the motif with the *nbtj* design (below design class 3).

The three-stem papyrus plant occurs as a dominant motif only on a small number of examples among the Kahun and Uronarti seal impressions (**Pl. 1: 31-38**). Two of them, from Kahun (**Pl. 1: 35-36**), display the motif with two spirals, a combination that is quite common on First Intermediate Period and early Middle Kingdom scarabs (Ward 1978a: Pl. 7: 201-207), but is extremely rare in the late Middle Kingdom series.²³ An additional indication for the early date of this particular combination is its occurrence with the so-called *nbtj* design (Ward 1978a: 70, Fig. 15: 48-9, 53) – a typical early Middle Kingdom design (Ben-Tor 1998: 6-7, and below, design class 3). A further argument for the early date of the two Kahun examples is provided by the round shape of one of them (**Pl. 1: 36**), which suggests that it was stamped by an early Middle Kingdom type ovoid.²⁴ The decorative pattern comprising small parallel lines, which surmounts (and probably flanks) the design on this particular impression is found on early Middle Kingdom scarabs and ovoids (Ward and Tufnell 1966: Fig. 2: 12, 24-5, 29, 31, 38, 58; Ben-Tor 1988: 9, Fig. 2: 12, 14) but is not known to occur with late Middle Kingdom designs.

The most common variation displaying the three-stem papyrus plant as dominant motif on the Kahun and Uronarti seal impressions depicts it in symmetric opposition (**Pl. 1: 21, 32-34, 38**). One of these, from Uronarti (**Pl. 1: 21**), showing four $\epsilon n\bar{l}$ signs in symmetric opposition between the out-curved stems, has close parallels on early Middle Kingdom scarabs (Ward 1978a: Pl. 8: 226-8), indicating the early Middle Kingdom origin of this particular variation. Two seal impressions bearing this variation were also found at Elephantine (**Pl. 1: 39-40**). One of them (**Pl. 1: 40**) originated in deposit 64a (Von Pilgrim 1996: 313) that is attributed by the excavator to stratum XV (Von Pilgrim 1996: 311) thus suggesting a highly likely early Middle Kingdom date (Von Pilgrim 1996: 15). The second impression was found in deposit 20a (Von Pilgrim 1996: 313), which is attributed to stratum 13 (Von Pilgrim 1996: 304) of the late Middle Kingdom (Von Pilgrim 1996: 15). On both of the Elephantine examples, the out-curved papyrus plants flank a stylized $\epsilon n\bar{l}$ sign instead of the straight stem. A similar form of $\epsilon n\bar{l}$ is found on an early Middle Kingdom scarab (Ward 1978a: Pl. 11: 276). The four $\epsilon n\bar{l}$ signs filling the space between the papyrus plants on the Elephantine examples are depicted without the small horizontal line, in the same manner as they are depicted on an early Middle Kingdom scarab (Ward 1978a: Pl. 8: 228). The Uronarti and Elephantine examples display characteristics that strongly suggest an early Middle Kingdom date. The impression from Uronarti and impression no. 144 from Elephantine (**Pl. 1: 39**), though found in late Middle Kingdom contexts, were most probably made by early Middle Kingdom scarabs.

A few examples from the late Middle Kingdom series bear variations of this design, displaying characteristics and developments that are not found on early Middle Kingdom scarabs. One example, depicting lotus flowers flanked by two out-curved papyrus stems, was found at Nubt (**Pl. 1: 41**) on a gold plate covering the base of a jasper scarab. The material of the scarab as well as the gold plate covering its base argue for the late Middle Kingdom date of this scarab (Martin 1971: 193; Ward 1978a: 33-5; Lilyquist 1993: 46-7). Additional late Middle Kingdom variations of this design are known from Uronarti (**Pl. 1: 23, 42**) and Mirgissa (**Pl. 1: 43**). One of the Uronarti examples (**Pl. 1: 23**) displays four *nfr* instead of $\epsilon n\bar{l}$ signs in symmetric opposition between the out-curved papyrus stems. The designs on these impressions differ from the early Middle Kingdom examples, as they display the out-curved stems protruding from a central decorative motif instead of the straight stem. Moreover, one of the Uronarti examples (**Pl. 1: 42**) displays a rope border (below, design class 8), which is not known to occur on early Middle Kingdom scarabs.

Designs comprising the three-stem papyrus motif in symmetric opposition, with no additional motifs (**Pl. 1: 32-34, 38**) are not found in the early Middle Kingdom series.²⁵ However, a more complex variation found among the Montet Jar scarabs (Ward 1978a: Pl. 8: 232), suggests a high probability for its early Middle Kingdom origin. Moreover, a variation of the design, depicting the out-curved stems flanking a stylized $\epsilon n\bar{l}$, was found among the seal impressions at Elephantine (**Pl. 1: 44**). The impression was found in deposit 31 (Von Pilgrim 1996: 313), which is attributed to stratum 14 (Von Pilgrim 1996: 306) and dated to the first half of the 12th Dynasty (Von Pilgrim 1996: 15). The design is not very common in the late Middle Kingdom series. Apart from the few examples from Kahun and Uronarti, a variation of this design, depicting the two out-curved stems flanking a lotus flower, is known from a scarab found at Nubt (**Pl. 1: 45**). There is insufficient evidence to determine if the few examples found in the late Middle Kingdom series are contemporary with their archaeological contexts or comprise so-called heirlooms. The size of the scarabs is also inconclusive in this case, as examples of similar or even smaller size bearing typical late Middle Kingdom motifs are attested in the late Middle Kingdom series (e.g. Tufnell 1975: Figs. 2-6: 4, 16, 32-5, 66, 79, 84, 88, 228-29, 248, 285).

²³ A scarab at Nubt bearing this design is presented by the excavators among First Intermediate Period -early Middle Kingdom material (Petrie and Quibell 1896: Pl. 58:3).

²⁴ Of the type found with the Montet Jar scarabs (Tufnell and Ward 1966: Fig. 2: 53-58). See also examples presented in Ward 1978a: 70, Fig. 15: *passim*.

²⁵ One example presented by Ward (1978: Pl. 8: 233) combines the motif with spirals.

The three-stem papyrus plant is extremely rare as an exclusive motif in the late Middle Kingdom series. Only one example is known from Kahun (**Pl. 1: 31**), displaying the motif in the same style as it appears in symmetric opposition. This style differs from those found on scarabs of the early Middle Kingdom series (Ward 1978a: Pl. 7), suggesting a late Middle Kingdom date.

Tufnell categorized under design class 1E designs comprising a central vertical geometric motif, which usually ends with floral motifs – lotus flowers or papyrus buds, at both ends (**Pl. 1: 46-50**). Some variations depict a drop-shaped design (**Pl. 1: 18**) or a geometric form (**Pl. 1: 47**) instead of the flowers at both ends. No examples of this particular design are known in the early Middle Kingdom series, though it may have been inspired by a floral design occurring on a typical early Middle Kingdom ovoid from Qau (Brunton 1930: Pl. 4:19). The design is occasionally found in combination with other designs: one of the Elephantine examples (**Pl. 1: 52**)²⁶ depicts the motif in a "cross pattern" (below, design class 5), and one example from Uronarti (**Pl. 1: 51**) depicts it with spirals, and is therefore categorized by Tufnell also under design class 2 (Tufnell 1975: Fig. 4:195).

The evidence for design class 1E in the late Middle Kingdom series indicates that examples displaying floral motifs as the dominant design are uncommon on scarabs of this period. It is also clear that these examples developed from early Middle Kingdom designs. It is important to note, however, that papyrus stems and buds, particularly variations of the three-stem papyrus plant, became one of the most common motifs on late Middle Kingdom scarabs, in combination with other designs (below design class 3).

§IA 2. Design Class 2 – Scrolls and spirals

Designs comprising scrolls and spirals are already well established in the early Middle Kingdom series (Ward 1978a: 55, Pl. 9-10), displaying most of the basic patterns that are further developed and elaborated in the late Middle Kingdom series. Design class 2 is divided in the Tufnell and Ward typology into two main subclasses, which apply to both series: 2A – unlinked Z, S, and C scrolls, and 2B – round interlocking spirals (Ward 1978a: 54-5, Pls. 9-10; Tufnell 1975: 71, Pls. 3-4; 1984: 116-17, Pls. 4-6). The question of the origin of spiral designs on Middle Kingdom scarabs, whether it evolved from Egyptian decorative motifs of the Old Kingdom as convincingly argued by Ward (1971: 104-19), or was inspired by Aegean artistic traditions (Kantor 1947: 21-32; Quirke and Fitton 1997) is still controversial. However, there is no argument with regard to the popularity of spiral designs on Egyptian late Middle Kingdom scarabs (Tufnell 1975: Figs. 3-4; Von Pilgrim 1996: Figs. 99-101).

The development, complexity and numerous variations of scrolls and spirals designs in the late Middle Kingdom series, compared with the early Middle Kingdom examples, made Tufnell propose a further division of subclass 2B into: 2B1 - round interlocking spirals with ends, 2B2 - round interlocking spirals unending (1975: 71; 1984: 116). Tufnell's discussions of these subclasses deal primarily with the Palestinian series (1975: 71; 1984: 116-17), noting however the common occurrence of all subclasses of design class 2 at Kahun and Uronarti, in contrast with the Palestinian series, where it is notably less common (Tufnell 1984: 48, table 12). Tufnell's conclusions with regard to the development of the subclasses of design class 2 are problematic due to the high chronology she proposes for the Canaanite Middle Bronze Age phases, and her dealing with Kahun and Uronarti and the Levantine material as one group. Dating the scarabs from tombs 66 and 73 at Ruweise, and the earliest examples of the early Palestinian series,²⁷ which postdate the Middle Kingdom (below, §III), to the early 12th Dynasty (Tufnell 1984: 1), Tufnell considers them earlier than the earliest examples at Kahun and Uronarti (Tufnell 1984: 4-6, 86).²⁸ She is therefore unaware of the late Middle Kingdom origin of many variations, and does not distinguish between Egyptian Middle Kingdom imports and their Canaanite imitations in the southern Levant. These flaws are reflected in Tufnell's suggested development of design class 2. In her discussion of subclass 2A, Tufnell states that unlinked Z, S, and C scrolls are more common in Ward's period 4 – now dated to the early 12th Dynasty (Ben-Tor 1998), than later, since design 2A developed into the round interlocking spiral (Tufnell 1984: 116). This conclusion is based on the rarity of subclass 2A in the Palestinian series, and on the fact that the Kahun and Uronarti examples are considered part of these series, and are not dealt with separately. Tufnell acknowledges the fact that in contrast with the Palestinian series, examples of subclass 2A occur in substantial numbers at Kahun and Uronarti (1975: 71; 1984: 116), but she does not offer any explanation for this phenomenon. Moreover, she ignores the fact that the Kahun and Uronarti examples²⁹ outnumber those found in the early Middle Kingdom series (Ward 1978a: Pl. 9).

²⁶ The sealing comes from deposit 20a (Von Pilgrim 1996: 313), attributed to stratum 13 (Von Pilgrim 1996: 304), which is dated to the late Middle Kingdom (Von Pilgrim 1996: 15).

²⁷ Ward and Dever 1994: 5-6, periods IIA-III. (below, introduction to chapter III)

²⁸ Dated by her to the mid-late 12th Dynasty (Tufnell 1975: 68-70).

²⁹ Not to mention other examples of the late Middle Kingdom series from other sites.

Tufnell (1984: 116-17) points out that unending spirals (subclass 2B2) are extremely rare in the early Middle Kingdom series,³⁰ concluding that they constitute a development of spirals with ends (subclass 2B1). An examination of the early Middle Kingdom series confirms Tufnell's observation with regard to the earlier date of subclass 2B1. However, the distinction between subclasses 2B1 and 2B2 in the late Middle Kingdom series and in the Palestinian series does not have any significance, as is explicitly stated by Tufnell (1975: 71; 1984: 116-17). There is therefore no reason for the distinction between these subclasses when dealing with the late Middle Kingdom and the Second Intermediate Period series in Egypt or in Palestine.

§IA 2a. Design class 2A – Scrolls and spirals, unlinked

As correctly noted by both Ward (1978: 54-5) and Tufnell (1975: 71; 1984: 116), unlinked scrolls constitute the earliest examples of design class 2. Moreover, the number of scarabs bearing class 2A in the early Middle Kingdom series is larger than those bearing design class 2B (Ward 1978a: Pls. 9-10). Like designs comprising floral motifs, spiral designs are extremely rare on design amulets other than scarabs (Ward 1978a: 55), and their initial occurrence seems to relate to scarabs (Quirke and Fitton 1997: 434).

A comparison between examples of subclass 2A in the early Middle Kingdom series (Ward 1978a: Pl. 9) and the late Middle Kingdom series (Tufnell 1975: Fig. 3), clearly show the late Middle Kingdom development and elaboration of the relatively simple early designs. Both series display unlinked spirals alone, and in combination with other designs – primarily floral motifs (design class 1E) and Egyptian signs and symbols (design class 3). The early Middle Kingdom series displays mainly combinations with floral motifs (Larsen 1936: Fig. 9: 1933:4013, 1932:2; 1941, Fig. 11: 254, 590, 131, 232; Ward 1978a: Pl. 9: 243-45, 249-50, 252-56), and a small number of combinations with Egyptian signs and symbols (Ward 1978a: Pl. 9: 247), as well as combinations with the *nbtj* design (Larsen 1941: Fig. 11: 496; Ward 1978a: Pl. 12: 310, 321-26). The late Middle Kingdom series on the other hand displays mainly combinations with Egyptian signs and symbols (**Pl. 2: 1-24**), and very few combinations with floral motifs (**Pl. 2: 25-28**). In fact, most examples categorized by Tufnell under subclass 2A at Kahun and Uronarti display the spirals in combination with other designs. In addition to Egyptian signs and symbols and floral motifs, unlinked scrolls are combined in the late Middle Kingdom series with cross patterns (**Pl. 2: 29-32**), and coiled and woven patterns (**Pl. 2: 33-37**).

Tufnell's observation with regard to the development of unlinked spirals into interlocking spirals (Tufnell 1984: 116) is basically correct. It is clearly indicated by the larger number of examples of subclass 2A compared with 2B in the early Middle Kingdom series, and the notable increase of examples bearing 2B designs in the late Middle Kingdom series, which outnumber those bearing design 2A (Tufnell 1975: Figs. 3-4; Von Pilgrim 1996: Figs. 98-100). However, the Kahun and Uronarti seal impressions (Tufnell 1975: Fig. 3: 58-116) show that subclass 2A continued into the late Middle Kingdom series, where it displays numerous variations and developments that are not found in the early Middle Kingdom series, particularly in combination with other designs. These examples refute Tufnell's conclusion that design class 2A reached its peak in Ward's period 4 = Montet Jar scarabs (Tufnell 1984: 116), and demonstrate that the design actually reached its highest point of popularity in the late Middle Kingdom. Most examples were found at Kahun and Uronarti (See **Pl. 2** here, and Tufnell 1975: Fig. 3), but the design is attested also at el-Lisht (**Pl. 2: 49-52**), Harageh (**Pl. 2: 53-57**), Elephantine (**Pl. 2: 23, 24, 28, 34, 58-64**), and Mirgissa fort (**Pl. 2: 65-66**).

§IA 2b. Design class 2B – Scroll and spirals, interlocking

As already noted above, a comparison between examples of design class 2 in the early and late Middle Kingdom series, indicates that designs of interlocking spirals developed from those comprising unlinked spirals. The large number of examples bearing design class 2B in the late Middle Kingdom series compared with those bearing design class 2A (Tufnell 1975: Figs. 3-4; Von Pilgrim 1996: Figs. 99-101), show that by the late Middle Kingdom design class 2B developed into the dominant variation of design class 2. As in the case of unlinked spirals, interlocking spirals are frequently depicted alone (**Pl. 3: 1-47**), but also combined with other motifs, primarily floral motifs and Egyptian signs and symbols (**Pl. 3: 48-66; Pl. 4: 1-30**), and less frequently cross patterns or coiled and woven patterns (**Pl. 4: 31-32**).

³⁰ She correctly notes (1984: 116) that the silver scarab of Wah is the only example in the early Middle Kingdom series displaying unending spirals.

Interlocking spirals constitute one of the most common designs in the late Middle Kingdom series, exceeded only by design class 3 – Egyptian signs and symbols (below). The extent of their popularity during this period is attested in the large corpora of Kahun and Uronarti (Pl. 3: 1-66, Pl. 4: 1-32), Elephantine (Pl. 4: 33-55), and Mir-gissa fort (Pl. 4: 56-66; Pl. 5: 1-4).³¹ Examples are also attested at el-Lisht (Pl. 5: 5-15), and even smaller groups like Harageh reflect the popularity of design class 2B in the late Middle Kingdom series (Pl. 5: 16-31).

Designs displaying interlocking spirals enclosing one or two hieroglyphs may be considered a variant of the scroll border – a common late Middle Kingdom design (design class 7 – Tufnell 1975: Figs. 9-10).³² Isolated examples of interlocking spirals enclosing a hieroglyph occur already in the early Middle Kingdom series (Ward 1978a: 42, Fig. 7: 4; Pl. 15: 383; Larsen 1936: Fig. 9: 1932:1). Ward (1978: 58) and Tufnell (1984: 127) consider these early examples as early variations of design class 7. However, the typical characteristics of the late Middle Kingdom scroll borders (Tufnell 1975: Figs. 9-10) are not found in the early Middle Kingdom series (Ben-Tor 1998: 11). The design on the impression from the Hekanakht papyri (Ward 1978a: 42, Fig. 7:4) displays design class 2B, and the examples from Abu Ghalib and Mostagedda noted above indeed show similarity to isolated late Middle Kingdom examples (Tufnell 1975: Fig. 9: 395-96). However, they also show similarity to another early Middle Kingdom example from Mostagedda that displays design 2B (Ward 1978a: Pl. 10: 270).

Examples of unlinked spirals (design class 2A) enclosing hieroglyphs are not found in the early Middle Kingdom series but they do occur in the late Middle Kingdom series (Pl. 2: 7, 9, 18, 19, 20). Their absence in the early Middle Kingdom series may suggest that their occurrence in the late Middle Kingdom series was inspired by the interlocking spirals enclosing hieroglyphs (design class 2B), which may have also inspired the common late Middle Kingdom scroll border.

§IA 3. Design class 3 – Egyptian signs and symbols

Design class 3 clearly constitutes the largest class of designs in the late Middle Kingdom series (Tufnell 1975: 71). The numerous variations of design class 3 were categorized by Tufnell under five main subclasses (A-E), each of them further divided according to particular motifs and variations (Tufnell 1975: 71-72; 1984: 117-23). Tufnell's discussions of the various subclasses of design class 3 refer to the entire corpus of the excavated series, which includes the First Intermediate Period and early Middle Kingdom series, the Palestinian series and the late Middle Kingdom examples from Kahun and Uronarti (Tufnell 1975: 71-72; 1984: 117-24). Considering the bulk of material and numerous variations, Tufnell's typology for design class 3 includes 31 subclasses (1984: 117-23), which reflect the most frequent designs in this large corpus. These subclasses, though not encompassing the entire extensive variety of design class 3, do provide a useful reference work for the numerous variations found in the Middle Kingdom and Second Intermediate Period excavated series.

It should be noted, however, that Tufnell's typology for design class 3 reflects the flaws in the Tufnell and Ward typology more than any other design class, particularly because of the numerous subclasses. The chronological and regional variations reflected in these subclasses are frequently misinterpreted by Tufnell as a result of her high chronology for the Middle Bronze phases, and her dealing with the large excavated corpus as one group (below, § III). Nevertheless, in spite of these difficulties, Tufnell's categorizing of the numerous designs displaying Egyptian signs and symbols under one design class is accepted in this study. Furthermore, the discussion in this study follows most of her suggested subclasses, as they reflect the developments of design class 3 during the first half of the second millennium BCE and demonstrate both regional and chronological variations that are significant for this study.

The various designs comprising design class 3 display primarily symmetric arrangements of hieroglyphs, which usually reflect the royal power or blessings, and were thus defined by Stock (1942: 15-17) as *neferzeichen* (good luck signs). Constituting the most typical late Middle Kingdom scarab decorations, these designs clearly reflect the amuletic function of scarabs during this period (Hornung and Staehelin 1976: 168-71; Keel 1995a: 165-75). A relatively small number of examples bearing limited variations of design class 3 are attested in the First Intermediate Period and early Middle Kingdom series (Ward 1978a: 23-24, 55-56, Pls. 11-13). There is, however, very little overlap between these early examples and the late Middle Kingdom variations, as correctly noted by Ward (1978: 23-24).

³¹ These examples do not include the very fragmentary examples presented by Gratien.

³² Compare design 2B examples from Elephantine (Von Pilgrim 1996: Fig 100: 23, 87), Nubt (Petrie and Quibell 1896: Pl. 80: 64) Harageh (Engelbach 1923: Pl. 20:51), and Kahun and Uronarti (Tufnell 1975: Fig. 3: 129, 142, 157), with those of design class 7 from Kahun and Uronarti (Tufnell 1975: Fig. 9: 380-385).

§IA 3a. Design class 3A - Monograms and varia

Tufnell and Ward divide design class 3A into four subclasses:

3A1 – sign of union, *sm3-t3wy*

3A2 – *nbtj* motif

3A3 – varia

3A4 – Horus hawk with *ntr* and other signs

Unlike most subclasses of design class 3, subclass 3A refers also to the First Intermediate Period and early Middle Kingdom series. The first two subclasses (3A1-3A2) are established in these early series (Ward 1978a: 23; Tufnell 1975: 71), and their initial occurrence seems to be associated with scarabs, as they are not found on earlier design amulets (Ward 1978a: 55-6). The third subclass (3A3) is in fact a miscellaneous category for the entire excavated corpus, referring to designs not categorized under any of the classified variations. Subclass 3A3 is used in the Tufnell and Ward typology for the First Intermediate Period and early Middle Kingdom series (Ward 1978a: 23) and for the Palestinian series (Tufnell 1984: 118), though with little overlap (Ward 1978a: 23). Tufnell does not use subclass 3A3 for the late Middle Kingdom impressions from Kahun and Uronarti, arguing that including all individual unclassified examples in this corpus would seriously overburden the typology (Tufnell 1975: 71). However, the significance of design class 3A3 for the typology of the late Middle Kingdom series lies in the comparison of unclassified examples with those assembled by Tufnell in the Palestinian series (1984: Pls. 8-8b), in order to define regional variations. This chapter therefore includes also subclass 3A3 for the late Middle Kingdom series.

§IA 3a1. Design class 3A1 - Sign of union (*sm3-t3wy*)

The sign of union is one of several "royal" symbols that are clearly attested in the early Middle Kingdom series (Ward 1978a: 72-74). Ward notes that these early examples³³ usually display the motif alone, unlike most of the later examples³⁴, which display it in symmetric opposition or in combination with other motifs (Ward 1978a: 73, Fig. 16). He also notes a few exceptions to this rule in both groups (Ward 1978a: 74). Ward further argues that the shape of the base of the papyrus clumps on either side of the central sign can also be considered as a dating criterion: the early group shows a pointed or curved base, while the later group displays a flat and often thick base (1978: 74).

In her discussion of the sign of union motif, Tufnell notes its absence among the Montet Jar scarabs (Tufnell 1975: 71; 1984: 117). The motif is also missing among the scarabs and seal impressions from Abu Ghalib (Larsen 1936: Fig. 9; 1941, Fig. 11).³⁵ Ward attributes the examples assembled in his study mainly to period 3 (1978: 73, Pl. 11: 295-300) – earlier than period 4, to which he attributes the Montet Jar scarabs. The absence of this motif in the Montet Jar and Abu Ghalib is somewhat intriguing, considering its occurrence on typical early Middle Kingdom ovoids (Ward 1978a: 73, Fig. 16: 2, 8) that are well attested in the Montet Jar (Tufnell and Ward 1966: Fig. 2: 27, 53-58). Moreover, the features of an isolated example from Tell el-`Ajjul (Keel 1997: 138-39, no. 99), displaying the motif in symmetric opposition, are identical to those found on scarabs from the Montet Jar (Ward 1978a: Pls. 9, 14: 247, 354, 356, 362, 366). The combination of these distinct features,³⁶ which is clearly attested on many of the Montet Jar scarabs, is not found on late Middle Kingdom or Canaanite scarabs. This scarab and the early Middle Kingdom ovoids bearing the sign of union motif argue that the absence of the motif in the Montet Jar and Abu Ghalib most probably reflects accident of survival.

Three seal impressions displaying the motif at Elephantine (**Pl. 5: 48-50**) are attributed by the excavator to stratum XV dated by him to the early Middle Kingdom (Von Pilgrim 1996: 15). Two of them (**Pl. 5: 48-49**) show characteristics that are not found in the early examples assembled by Ward (1978: 73, Fig. 16: 1-8). Moreover, they show close similarity to examples found in the late Middle Kingdom series, such as the mixture of the motif with other designs and the thick and flat bases of the papyrus clumps. The absolute date of these two examples should be considered with caution considering the problematic nature of the Elephantine deposits (above).

The popularity of this motif in the late Middle Kingdom series is well attested. The late Middle Kingdom examples usually display the sign of union in combination with other motifs – mainly hieroglyphs, and occasionally spirals, or in symmetric opposition (**Pl. 5: 32-47**). It is sometimes found in more complex designs, (**Pl. 5: 47, 54**), which show a mixture of subclasses of design class 3, and reflect the common mixture of motifs and designs in the late Middle Kingdom series. The sign of union is found in all published late Middle Kingdom excavated groups

³³ Dated by Ward to the First Intermediate Period.

³⁴ Dated by Ward to the Middle Kingdom and the Second Intermediate Period.

³⁵ The contemporaneity of the Montet Jar scarabs and the Abu Ghalib scarabs and seal impressions was discussed elsewhere (Ben-Tor 1998).

³⁶ Particularly the 'ladder'-motif used for the division of the wing case on the back, and the type e6-side.

(**Pl. 5: 51-63, Pl. 6: 1-19**), and its popularity is attested in the large corpora at Kahun, Uronarti, and Elephantine (**Pl. 5: 32-50, Pl. 6: 2-19**).

§IA 3a2. Design class 3A2 – *nbtj* design

Both Ward and Tufnell note that the *nbtj* design constitutes a large class in the early Middle Kingdom series,³⁷ while it is notably scarce in the later excavated series (Ward 1978a: 68-72; Tufnell 1975: 71; 1984: 117-18; see also Ben-Tor 1998: 6-7). Like the sign of union, the *nbtj* design is a "royal" symbol that first occurs in significant numbers on scarabs of period 3.³⁸ Other motifs symbolizing kingship are associated with the *nbtj* design in the early Middle Kingdom series (Ward 1978a: 56, 61-63), most of them, however, do not continue into the late Middle Kingdom series. Ward classifies seven main variations of the *nbtj* motif in the early Middle Kingdom series (Ward 1978a: 68), of which the dominant variation in the late Middle Kingdom series is the one displaying the double papyrus plants (Ward 1978a: 68, 72; Tufnell 1975: Fig. 4: 238-244). This is the reason for Tufnell's name for the motif in the later series: "*nbtj* and plants" (1975: 71; 1984: 117).

It has been argued elsewhere (Ben-Tor 1998: 7) that some of the examples attributed by Ward to the late Middle Kingdom and the Second Intermediate Period (Ward 1978a: 70-71, Fig. 15), including examples from clear archaeological contexts, show characteristics that indicate an early Middle Kingdom date. These include typical early Middle Kingdom ovoids (Ward 1978a: 70, Fig. 15: 29, 40, 52, 82), the small parallel lines between the two *nb* signs (Ward 1978a: 70, Fig. 15: 6, 28, 57-59, 63, 75, 85-86, 88, 90-91), horned animals (Ward 1978a: 69, and Fig. 15: 18; Ben-Tor 1998: 7, note 11), and vultures (Ward 1978a: 70, Fig. 15: 17, 21-28, 29-30, 30a, and Pl. 12: 304-12).

Unlike the sign of union, the popularity of the *nbtj* motif diminished considerably in the late Middle Kingdom series, yet examples were found at Uronarti (**Pl. 6: 26-32**) and Kahun (**Pl. 6: 20-25, 33-34, 40**). One example from Kahun (**Pl. 6: 23**) could have been stamped by an early Middle Kingdom scarab considering the parallel lines between the *nb* signs. Examples of the *nbtj* design were also found at Elephantine (**Pl. 6: 35-39**), four of them (**Pl. 6: 36-39**) from deposits attributed to stratum 13 of the late Middle Kingdom.³⁹ Of the latter, one example (**Pl. 6: 38**) shows the early parallel lines between the *nb* signs, which argue for an early Middle Kingdom date. This impression also displays a combination of the sign *k3* with the three-stem papyrus motif, which shows close similarity to early Middle Kingdom examples from the Montet Jar and Abu Ghalib (Ben-Tor 1998: Fig. 2: 3, 15-16). Another probable early Middle Kingdom example from Elephantine (**Pl. 6: 39**) seems to have been stamped by an early Middle Kingdom type ovoid.

From the seven variations of the *nbtj* design noted by Ward in the early Middle Kingdom series (Ward 1978a: 68), only three continue into the late Middle Kingdom. Apart from the double papyrus plants noted above, only red crowns and papyrus plants with spirals occur on late Middle Kingdom examples that show characteristics not found in the early Middle Kingdom series. These characteristics include a *nfr* sign between the two *nb* signs, stylized *s3* signs between the papyrus plants, and different proportions between the length and width of the base, creating a longer and narrower frame for the design.⁴⁰ Such examples were found at Kahun (**Pl. 6: 24, 33, 40**), Uronarti (**Pl. 6: 26-27**), Elephantine (**Pl. 6: 36-37**), Mirgissa fort (**Pl. 6: 41-42**), and Harageh (**Pl. 6: 43-45**).

§IA 3a3. Design class 3A3 – *Varia*

In agreement with Tufnell's arguments (1975:71) against presenting every individual variation of design class 3 in the Kahun and Uronarti corpus, the designs presented here under class 3A3 include only a selected representative group of unclassified patterns of design class 3 in the late Middle Kingdom excavated series. Like other patterns of design class 3, the designs assembled here (**Pl. 7**) comprise mainly symmetric patterns. Many of them are in fact identical to those categorized by Tufnell under design class 3B (below), except for the different selection of signs. Their treatment here as *varia* allows the discussion to follow Tufnell's original subclasses, and thus form a convenient basis for comparison with the Palestinian series, both for the unclassified designs and for the other variations of design class 3.

The most common pattern among the unclassified examples of design class 3 depicts two signs displayed one above the other at the center, each flanked by symmetrically arranged signs, usually comprising different signs for both the central and the flanking signs (**Pl. 7: 1-12**). The most common signs in this group are long narrow hieroglyphs such as *w3d*, *nfr*, *ꜥnh*, *s3*, *dd*, and *w3h*. A variation of this pattern, with a similar arrangement of hieroglyphs, displays the two signs flanking the top central sign (or occasionally one central sign) diagonally (**Pl. 7: 13-**

³⁷ Dated by these scholars to the First Intermediate Period (above, introduction to chapter I).

³⁸ Only one excavated example is attributed by Ward to period 2 (Ward 1978a: Pl. 12: 317).

³⁹ The item illustrated in **Pl. 6: 35** is a surface find.

⁴⁰ See also Ward 1978a: 72.

14). This arrangement probably inspired the frame or border enclosing two or three central signs (Pl. 7: 15-18)⁴¹. The signs most commonly enclosed in this type of frame are *nfr r^c*, which are also frequently enclosed in a scroll border or a cartouche (as no. 18 here, and below design classes 3D1, 7A2).

Another symmetric pattern displays a horizontal line, or double line, at the center, dividing the base into two separate fields (Pl. 7: 19-31). A variation of this pattern depicts a three-stem papyrus plant in the top field (Pl. 7: 28-30).

A slightly different arrangement portrays the pattern of a central sign flanked by two symmetrically displayed signs, surmounted by two or three different signs, which are not arranged symmetrically (Pl. 7: 32-36). The latter are usually the bee depicted next to *nfr* or *h^cnb*, (Pl. 7: 32-34), or the signs *h^crd* and *h^czt* (Pl. 7: 35-36). This variation also occurs with the horizontal dividing line (Pl. 7: 31), sometimes with other hieroglyphs (Pl. 7: 37-38). Miscellaneous designs displaying three or four hieroglyphs in non-symmetric patterns are also found (Pl. 7: 39-41).

Another pattern comprises the typical symmetric arrangement of two signs flanking a central sign, with a large *h^c* sign above, and a large *nb* sign below, both depicted along the contour line of the plinth as a frame above and below the central motif (Pl. 7: 42-45). Variations depict only the *nb* sign below, and symmetrically opposed diagonal signs above (Pl. 7: 46), or more frequently, a *h^ctp* sign (Pl. 7: 47-52). The central pattern between the *nb* and the *h^ctp* signs varies, sometimes depicting the typical symmetric arrangement of a central sign flanked by two symmetrically arranged signs (Pl. 7: 47, 51-52), a three-stem papyrus plant (Pl. 7: 48, 50) or a selection of signs (Pl. 7: 49). Variations depicting the *nb* sign at the bottom, a symmetric pattern at the center, and one sign at the top are also found (Pl. 7: 53-54).

The late Middle Kingdom series also include examples displaying a simple symmetric arrangement of a central sign flanked by two symmetrically arranged signs, in longitudinal setting (Pl. 7: 55-59), and miscellaneous symmetric patterns (Pl. 7: 60-64).

The examples presented in plate 7 show the typical mixture of motifs and designs in the late Middle Kingdom series. This mixture is apparent within the group itself and in the occurrence of most of its patterns and motifs on examples categorized under other subclasses of design class 3, as well as other design classes. The narrow vertical hieroglyphs, the three-stem papyrus plants, the frame composed of hieroglyphs enclosing *nfr r^c*, and the symmetric arrangements of signs, constitute the most common designs in the late Middle Kingdom series, and are found in numerous variations in this corpus. It should be noted that the designs assembled here under subclass 3A3 are not known to occur in the First Intermediate Period – early Middle Kingdom series.

§IA 3a4. Class 3A4 – Horus hawk with *nfr* and other signs

Tufnell's statement that there is no trace of this design among the Kahun and Uronarti impressions (1975: 71) is also true for the entire corpus of the late Middle Kingdom excavated series. Tufnell attributes its absence at Kahun and Uronarti to the early 12th Dynasty date proposed by her for the Palestinian examples bearing this design (1984: 86), which predates the time-span of the Kahun and Uronarti corpus. Tufnell also considers the possibility of a regional variation, based on the popularity of the design in the Palestinian series, but clearly prefers a chronological difference (1975: 71-2; 1984: 86). This design class is discussed in detail below (§ IIIA 3a4), where it is demonstrated that its Canaanite origin and post Middle Kingdom date account respectively for its popularity in the Palestinian series and for its absence in the Egyptian late Middle Kingdom series.

§IA 3b. Design class 3B – Symmetric patterns

Design class 3B was defined by Tufnell as: "Egyptian hieroglyphs signs and symbols, arranged in pairs on either side of a central group or theme" (Tufnell 1975: 72). Tufnell notes the absence of this concept in the First Intermediate Period – early Middle Kingdom series (Tufnell 1984: 118).⁴² Design class 3B is divided by Tufnell into seven subclasses which consist of particular pairs of hieroglyphs, selected either for association with royal-name scarabs or for their popularity (Tufnell 1975: 72, 1984: 118-21).

§IA 3b1. Design class 3B1 – Cobras

Tufnell's discussion of this subclass (1975: 72; 1984: 118), like her discussions of all design classes, refers to the entire corpus of the excavated series and deals primarily with the Palestinian series. Tufnell divides design 3B1, according to the position of the symmetric cobras, into four types: a – addorsed, b – addorsed and linked, c – confronted, d – addorsed, linked and crowned (1984: 118), stating that all varieties of cobra presentation are rare or missing at Kahun and Uronarti (1975: 72; 1984: 118). This situation also applies to the entire corpus of the late

⁴¹ This frame also encloses late Middle Kingdom private-name scarabs (Martin 1971: Pl. 39: 13-14, Pl. 40: 19-27).

⁴² Except for a small number of variations of the *nbty* design, which display a similar symmetric arrangement (Ward 1978a: 23).

Middle Kingdom excavated series, where only a handful of examples are found (Pl. 8: 1-10),⁴³ unlike the Palestinian series, where the popularity of the four variations of paired cobras is clearly attested (Tufnell 1984: Pls. 9-10). Tufnell's dating of particular subclasses in the Palestinian series based on their occurrence on 12th Dynasty royal-name scarabs (1984: 118) ignores the Canaanite production and the significantly later date of the Palestinian examples (below, §III). Paired cobras flanking a cartouche on isolated late 12th Dynasty royal-name scarabs (Tufnell 1984: Pl. 53: 3082, 3084)⁴⁴ were probably inspired by the occurrence of the motif on Middle Kingdom royal jewelry (Tufnell 1984: 118). The motif is not a reliable dating criterion, since most examples are found on significantly later Canaanite scarabs. The rare occurrence of the motif in the late Middle Kingdom series, and its depiction within the most typical symmetric patterns of this period, do not allow using it for a dynastic affiliation of the few Egyptian late Middle Kingdom examples.

§IA 3b2. Design class 3B2 – King of Upper and Lower Egypt (*nsw-bit*)

The sedge and the bee, comprising the royal title *nsw-bit* – King of Upper and Lower Egypt, occur on early Middle Kingdom scarabs (Ward 1978a: Pl. 12: 301-2), and in the Palestinian series (Tufnell 1984: 118-19, Pl. 11). The motif is absent in the late Middle Kingdom series, however, although both hieroglyphs are often found separately in symmetric patterns (E.g. Tufnell 1975: Fig. 6: 282-92, 303-4). Tufnell notes three royal-name scarabs displaying the title above the prenomen of Senwosret I and Senwosret II (Tufnell 1984: Pls. 51-2: 3013, 1038, 3041), but these royal-name scarabs are not contemporaneous with the reigns of those kings (below, §IB 1), so they cannot be used for the dating of the *nsw-bit* motif. Moreover, as in the case of the cobras, the examples found in Palestine are significantly later Canaanite productions (below §IIIA 3b2). The absence of the motif in the late Middle Kingdom series is best explained as reflecting an artistic convention of the period, which shows a preference for depicting the two signs separately within the typical symmetric patterns of late Middle Kingdom design scarabs.

§IA 3b3. Design class 3B3 – Red crowns

Tufnell's discussion of the variations of this design refers primarily to the Palestinian series (Tufnell 1975: 72; 1984: 119-20). She divides the design into five types: a – addorsed on *nb*, b – addorsed, c – confronted, d – addorsed, "L shaped", e – *tête bêche*. Four out of the five types – types a,b,c,e – occur at Kahun and Uronarti (Tufnell 1975: Fig. 5: 248-267).

Type a – addorsed on *nb*

As noted by Tufnell (1984: 119), addorsed red crowns on *nb* most probably continue a variation of the early Middle Kingdom *nbtj* motif (Ward 1978a: Pl. 12: 314-16, 321-26).⁴⁵ This is supported by a fragmentary example from Mirgissa fort depicting the late Middle Kingdom variation of the *nbtj* motif (above) with a red crown on *nb* (Pl. 6: 41). The late Middle Kingdom series depict addorsed red crowns on *nb* in typical symmetric designs (Pl. 8: 11, 14-15), often flanking a central sign (Pl. 8: 13, 16-27). Two examples from Elephantine (Pl. 8: 28-29), displaying the motif with the sign of union (design class 3A1), were found in deposits attributed by the excavator to strata XIV and XV, which Von Pilgrim (1996: 15) dates to the early Middle Kingdom. The occurrence of this combination on two examples at Uronarti (Pl. 8: 19, 30), and its absence in the early corpus assembled by Ward (Ward 1978a: 73, Fig. 16: 1-8, and Pl. 11: 295-300), cast some doubt on the early Middle Kingdom date of the Elephantine examples. Tufnell dates type a to the early 12th Dynasty until Senwosret II, based on its occurrence on royal-name scarabs bearing the name of that king (1984: 119). However, these royal-name scarabs are not contemporaneous with the reign of Senwosret II and cannot be used to date the motif (below §IB 1).

Type b – addorsed

Like red crowns of type a, addorsed red crowns occur in symmetric designs in the late Middle Kingdom series, usually flanking a central sign (Pl. 8: 31-40). Tufnell's observation that there are more examples of type a than b at Kahun and Uronarti (1975: 72; 1984: 119) is correct for the entire late Middle Kingdom excavated series. Tufnell notes the occurrence of the motif on royal-name scarabs bearing the names of Senwosret I, II and III. However as in the case of type a, these scarabs are not contemporaneous with the reigns of these kings, and should not be used to date the motif (below, §IB 1).

Type c – confronted

Tufnell notes the popularity of this type at Kahun and Uronarti in contrast with its extreme rarity in the Palestinian series (Tufnell 1975: 72; 1984: 119). Based on the occurrence of this type on royal-name scarabs of Amenem-

⁴³ See Gratien 2001: Fig. 2: 5C-181 for an additional fragmentary example from Mirgissa.

⁴⁴ The scarab bearing the name of Senwosret I from the British Museum (Tufnell 1984: Pl. 51: 3011) is not a contemporaneous royal-name scarab (below, §IB 1).

⁴⁵ An example from Kahun presented by Tufnell (1975: Fig. 5: 249 = Pl. 8: 12) was probably stamped with an early Middle Kingdom scarab considering the form of the *nbtj* motif and the particular form of *ꜥnh* (Ward 1978a: Pl. 12: 315).

hat III (Tufnell 1984: Pl. 53: 3078-79), Tufnell dates it mainly to the reign of this king. She further states that its almost complete absence in the Palestinian series may suggest a minimal Egyptian influence in Palestine during his reign (Tufnell 1984: 119). This conclusion is, however, based on the 12th Dynasty date attributed by Tufnell to the early Palestinian series (below, § III). The Amenemhat III royal-name scarabs are probably contemporaneous with the king's reign (below, § IB 1); however, their use to determine the date of the motif on late Middle Kingdom design scarabs is problematic. The popularity of the motif at Uronarti, in an archaeological context attributed to the mid-late 13th Dynasty (S. Allen in Ben-Tor et al. 1999: 55-58), argues against attributing it mainly to the late 12th Dynasty. Confronted red crowns occur in the late Middle Kingdom series primarily in combination with the gold sign (Pl. 8: 41-50; See also Tufnell 1975: 72, and below, design class 3B6). An unusual example from Mirgissa fort depicts the confronted crowns on *nb* flanking a *nfr* sign in a symmetric pattern of hieroglyphs (Pl. 8: 51).

Type d – addorsed, "L shaped"

This type depicts the crowns in a schematic form resembling a capital "L", which is not found on Middle Kingdom scarabs. Its occurrence in the Palestinian series is restricted to Canaanite scarabs and reflects the poor imitation of Egyptian hieroglyphs by Canaanite artisans, which is attested on many Canaanite scarabs (below § IIIA).

Type e – presented tête bêche

There are only two examples each at Kahun and Uronarti displaying this motif (Pl. 8: 52-55). This type is by far less common in the late Middle Kingdom series⁴⁶ than types a and c. However its occurrence at Kahun and Uronarti attests to its late Middle Kingdom origin, as it is not found in the early Middle Kingdom series.

To sum up design class 3B3 – type a originated in the early Middle Kingdom *nbty* motif, but developed into different patterns in the late Middle Kingdom series, while types b, c, and e originated in the late Middle Kingdom series. The occurrence of types a, b, and c on royal-name scarabs is of minor significance with regard to the absolute date of the late Middle Kingdom design scarabs displaying them, most of which were found in 13th Dynasty archaeological contexts. Royal-name scarabs of Amenemhat III displaying type c suggest a likely late 12th Dynasty origin for this particular subclass.

§IA 3b4. Design class 3B4 – Horus eyes (*wḏ3t*)

The *wḏ3t* eyes are well represented at Kahun and Uronarti (Tufnell 1975: 72, Fig. 6: 268-81), and in the other groups comprising the late Middle Kingdom series (Pl. 9: 19-40). Usually displayed in pairs in symmetric patterns, they are frequently depicted at the top of the plinth (Pl. 9: 3, 6, 8-13, 22, 31, 34), at the center (Pl. 9: 2, 14-21, 24-28, 32, 34, 36-39) flanking a central sign (Pl. 9: 10, 15-18, 24, 26, 28, 34, 38-39), or in combination with spirals (Pl. 9: 1, 4, 23, 26, 40). The motif is not found in the First Intermediate Period and early Middle Kingdom series. Tufnell notes its occurrence in symmetric patterns on royal-name scarabs of Amenemhat III (Tufnell 1984: 120, Pl. 53: 3078-3080), and suggests its peak in the late 12th Dynasty. However, the popularity of the motif at Uronarti argues that the motif maintained its popularity throughout the late Middle Kingdom, well into the 13th Dynasty.

§IA 3b5. Design class 3B5 – Sedge plants (*swt*)

Like the *wḏ3t* eyes, the sedge plant is well represented in the late Middle Kingdom series. It is most commonly displayed in pairs flanking a central motif at the top field of symmetric patterns divided by a central line (Pl. 10: 1-13). Paired sedge plants are also attested on *nb* signs in longitudinal setting flanking a central motif (Pl. 10: 5, 13). The particular form in which the plant is depicted in the late Middle Kingdom series was described as "formal" by Tufnell, who notes its occurrence at Kahun and Uronarti, in contrast with the "casual" simple depiction of this sign in the Palestinian series (1984: 120). The simple form of the sedge plants occurs on three scarabs from Nubt (Petrie and Quibell 1896: Pl. 80: 53-5), implying a post-Middle Kingdom date for these particular examples (below, §IIA 3b5). Tufnell suggests mainly a 13th-15th Dynasty date for the motif (1984: 120) based primarily on its occurrence in the Palestinian series and on 15th Dynasty royal-name scarabs. She was, however, unaware of the fact that most of the Palestinian examples are Canaanite productions imitating late Middle Kingdom prototypes, and therefore did not recognize the origin of the motif in the late Middle Kingdom series.⁴⁷

§IA 3b6. Design class 3B6 – Gold sign (*nbw*) in longitudinal setting

This design is well represented in the three large late Middle Kingdom groups from Kahun, Uronarti and Elephantine (Pl. 10: 14-48, Pl. 11: 1-5), showing the same basic design: a central gold sign displayed longitudinally flanked by two symmetrically displayed signs, and surmounted by one, two or three signs or symbols. The two signs flanking the central gold signs are usually *ḥnḥ* signs (most examples on Pls. 10-11), sometimes enclosed in an oblong ring (Pl. 10: 14-15, 18, 21, 23, 36-37, 44). Two decorated ovals (below, design class 6) flank the gold

⁴⁶ The motif is not found on other examples in the late Middle Kingdom series.

⁴⁷ The motif is not found in the First Intermediate Period – early Middle Kingdom series.

sign on one example from Uronarti (Pl. 10: 35) and one example from Elephantine (Pl. 11: 4), and two spirals flank one example from Uronarti (Pl. 10: 29). The signs and symbols surmounting the gold sign vary: The most common are confronted crowns (Pl. 10: 19-22, 24, 27, 30-34, Pl. 11: 2, 5-6), the three-stem papyrus plant (Pl. 10: 28, 38, 40-43, Pl. 11: 1, 3), lion foreparts – usually flanking a central symbols (Pl. 10: 17, 25-26, 39-40, 47, Pl. 11: 1, 3, 7), the bee (Pl. 10: 14-15), and *w3d* signs (Pl. 10: 23, 35-36, 44, 46, 48). Variations depicting other signs, such as two *m3ct* feathers, *hpr*, or *šn*, are also known (Pl. 10: 16, 29, 37, 45). The design is not found in the First Intermediate Period – early Middle Kingdom series. Tufnell's statement (1984: 120) that design class 3B6 dates mainly from the Second Intermediate Period is based on its distribution in the Palestinian series. As in the case of other design classes, however, Tufnell was not aware of the late Middle Kingdom origin of the design, and of the fact that most examples found in Palestine constitute Canaanite imitations of the late Middle Kingdom prototypes (§ IIIA).

The gold sign as the central motif is also found in the late Middle Kingdom series in vertical setting, combined with symmetric arrangements of signs and symbols (Pl. 11: 8-25). Tufnell did not include these patterns in design class 3B6, but catalogued many examples under other design classes according to the particular signs and symbols combined with the gold sign (Tufnell 1975: Figs. 2,5,6: 7, 9, 13-4, 33-4, 55, 57, 250, 257, 262, 269-70, 273, 276, 280).

§IA 3b7. Design class 3B7 – Forepart of lion (*h3t*)

Tufnell notes the popularity of this design at Kahun and Uronarti in contrast with its scarcity in the Palestinian series (Tufnell 1984: 120-21). Lion foreparts are usually displayed in pairs in symmetric opposition in the late Middle Kingdom series, either with the gold sign in longitudinal setting (above design class 3B6) or in symmetric patterns with other hieroglyphs (Pl. 11: 26-46). The latter pattern, usually depicting lion foreparts along with *w3d3t* eyes, red crowns, or bees, is also found on royal-name scarabs bearing the name of Amenemhat III (Tufnell 1984: Pl. 53: 3078-80). Based on these royal-name scarabs, Tufnell suggests that the pattern died out in conformity with the disuse of this king's name about the end of the 12th Dynasty, thus explaining its almost complete absence in the late Palestinian series (1984: 120-21). However, as in the case of other design classes found in the late Middle Kingdom series, the popularity of design class 3B7 on examples found in advanced 13th Dynasty contexts such as Uronarti (Ben-Tor et al. 1999: 55-58), argues against Tufnell's suggestion. It should also be noted that this pattern frequently flanks central columns of hieroglyphs which were often misinterpreted as royal prenomena, although, as convincingly shown by Ward (1977), they merely depict symmetric patterns of design class 3B.

Lion foreparts are also found with design class 3B6 (Pl. 10: 17, 25-26, 39-40), in miscellaneous designs categorized above under design class 3A3 (Pl. 7: 35-36, 53), and they are occasionally displayed in symmetric opposition, forming the central motif (Pl. 11: 47-49).

Summing up design class 3B in the late Middle Kingdom series, it is apparent that the symmetric patterns comprising this design class originated on late Middle Kingdom scarabs, on which they constitute one of the most popular designs. This is clearly attested in the numerous examples found in the late Middle Kingdom series, which include most subclasses established by Tufnell for this design, though the latter refer primarily to the Palestinian series. The fact that Tufnell's subclasses of design class 3B occur also in the Palestinian series attests to the popularity of this design on Canaanite scarabs. The distinct differences between the Egyptian and Canaanite examples bearing variations of design class 3B are discussed in detail below (§ IIIA 3b). The few subclasses that are not attested in the late Middle Kingdom series, such as class 3B1d, 3B2 and 3B3d, constitute Canaanite variations (below, § IIIA 3b).

§IA 3c. Design class 3C – Formulae

The formulae categorized by Tufnell under design class 3C are usually referred to as *nr^c*, after the hieroglyphs *n^c* *r*, which are included in the most common variations of this design. Tufnell notes the complete absence of the design at Kahun and Uronarti, and states that it is unclear whether this absence has a regional or chronological significance (Tufnell 1975: 72; 1984: 121). Most variations of this design are in fact absent in the entire late Middle Kingdom corpus, and they are attested in Egypt mainly in Second Intermediate Period contexts (Kemp and Merrill 1980: 49 and n. 115; below). The origin and absolute chronology of the design, which has been the subject of much scholarly debate (Keel 1995a: 175-76), is discussed below (§ IIIA 3c) where evidence is presented for the Canaanite origin of most variations. The design is also discussed with regard to its occurrence in Egypt during the Second Intermediate Period (below, § IIA 3c). The discussion in this chapter refers only to a suggested late Middle Kingdom prototype for some variations of the formulae categorized under design class 3C.

Two Egyptian late Middle Kingdom prototypes were recently suggested for the formulae comprising this Canaanite design (Ben-Tor 1997: 171-75): 1. The formula *htp n^c r^c* found on two seal impressions from Nubt made by the same scarab (Petrie and Quibell 1896: Pl. 80: 45). 2. The small so-called *rdi r^c* scarabs (Keel 1995a: 240-41, §

639-40), examples of which are attested in the late Middle Kingdom series at Kahun (Pl. 12: 1-3) and Harageh (Pl. 12: 4).⁴⁸ The late Middle Kingdom date suggested for the two sealings from Nubt (Ben-Tor 1997: 175) can now be refuted based on evidence from the Second Intermediate Period excavated series from Egypt and Palestine. The bulk of the Nubt sealings indeed display distinctive late Middle Kingdom designs identical to those found at all other late Middle Kingdom administrative units. However, the particular variation of design class 1E associated with the *hṯp n r^c* sealings argues for a Second Intermediate Period date (below, §IIA 1a, §IIIA 1a).⁴⁹ This leaves only the small *rdi r^c* scarabs as a likely late Middle Kingdom prototype for some variations of the formula, though other possible prototypes associated with media other than scarabs should not be ruled out. The small *rdi r^c* scarabs whether bearing the phrase *rdi r^c* or merely the name of the god, are most probably associated with the cult of the sun god Re (see also design class 3D). Tufnell did not include scarabs of this type in her study of Kahun and Uronarti, but includes one example of this type from Tell el-ʿAjjul among the variations of design class 3C in her study of the Palestinian series (1984: Pl. 16: 1720).⁵⁰

§IA 3d. Design class 3D – Cartouches

Tufnell's discussion of design class 3D in her study of the Kahun and Uronarti seal impressions includes examples depicting actual cartouches enclosing royal names, as well as oblong rings enclosing more than one sign (1975: 72). In her study of the Palestinian series, Tufnell deals with a significantly larger body of source material and divides the design into six different types, reflecting the variations attested in this large corpus (1984: 121-22). Of these six types, the only one found on design scarabs at Kahun and Uronarti, and in the entire corpus of the late Middle Kingdom series, is type 3D1 – a simple oblong ring.

All examples from Kahun and Uronarti assembled by Tufnell under design class 3D1 depict the signs *nfr r^c* enclosed in an oblong ring (Tufnell 1975: Fig. 6: 307-12). The Uronarti examples display the oblong ring flanked by two pairs of symmetrically arranged signs, and surmounted by a *s3* sign (Pl. 12: 6-10). Examples depicting this pattern were also found at Kahun (Pl. 12: 11-13), and Elephantine (Pl. 12: 14). Examples displaying the oblong ring enclosed in a frame of hieroglyphs occur at Uronarti (Pl. 12: 15) and el-Lisht (Pl. 12: 16). The example from Kahun presented by Tufnell (Pl. 12: 5) depicts the design enclosed in a scroll border. This particular design is less common than the previous one (Pl. 12: 17-18), and shows close similarity to the design depicting the signs *nfr r^c* enclosed in a scroll border (below, design class 7). Signs other than *nfr r^c* enclosed in an oblong ring and scroll border include *k3 nfr* on a seal impression from Nubt (Pl. 12: 20), and *ʿnl nfr* on a seal impression from Mirgissa fort (Pl. 12: 19).

The common occurrence of the short formula *nfr r^c* enclosed in various frames⁵¹ supports the association of particular types of late Middle Kingdom design scarabs with the cult of the sun god Re (above, design class 3C). Scarabs bearing formulae which suggest an association with the cult of Re were discussed by Ryholt (1997: 62-65), with regard to examples previously considered as royal-name scarabs. Two of the six types presented by Ryholt should be dated to the late Middle Kingdom (Ben-Tor et al. 1999: 63-64).⁵² One of them depicts the formula *h^c-hṯp-r^c* enclosed in an actual cartouche, and flanked by two papyrus plants, one straight and one with an out-curved stem, on a *nb* sign (Tufnell 1984: Pl. 55: 3162, 3164-66).⁵³ These scarabs were considered by most scholars as royal-name scarabs of Sobkhotep V of the 13th Dynasty. Ryholt however, recently argued against this interpretation, and suggested reading *h^c-hṯp-r^c* as a formula pertaining to the sun god Re (Ryholt 1997: 63).⁵⁴ This group can in fact be categorized under Tufnell's design class 3D4 – cartouche with a triangular base. One example of this type comes from debris in the north pyramid cemetery at el-Lisht (Pl. 12: 21). Although no example was found in a late Middle Kingdom context, a late Middle Kingdom date is suggested for this group based on stylistic features of the known examples (below, § IB). It is also indicated by the particular type of cartouche with triangular base (type 3D4), the dominant cartouche of 13th Dynasty royal-name scarabs (Tufnell 1984: 122, and Pls. 54-5). The examples

⁴⁸ *Rdi-r^c* type scarabs were also found in the north pyramid cemetery at el-Lisht, yet as all of them come from debris and some display Second Intermediate Period characteristics, their late Middle Kingdom date is not secure. Two examples from the early workshop at Tell el-Dab'a (Pl. 31: 6, 15) support the late Middle Kingdom origin of the *rdi-r^c* type scarabs (below, §IIb 5c).

⁴⁹ One of the Nubt sealings displaying a New Kingdom design (Petrie and Quibell 1896: Pl. 80: 22) may indicate small-scale use of scarabs for sealing at the site in the New Kingdom. The almost complete absence of Second Intermediate Period sealings in Egypt (below, §IIa) suggests that the *hṯp-n-r^c* sealings reflect New Kingdom administrative activity at the site using a Second Intermediate Period scarab (see also the Uronarti sealings, below, §IIa 4, and Bietak 2004).

⁵⁰ The Egyptian origin of this scarab was noted elsewhere (Ben-Tor 1997: 157).

⁵¹ Such as oblong rings, scroll borders (below design class 7), and frames of hieroglyphs (above design class 3A3).

⁵² Scarabs bearing the formulae *3w-ib-r^c* and *h^c-hṯp-r^c*. The first type is attested at Kahun (Petrie 1891: Pl. 9: 67) and Uronarti (Reisner 1955: Fig. 16: 411).

⁵³ See Ben-Tor et al. 1999: 64.

⁵⁴ See also Ben-Tor et al. 1999: 63-4.

from Kahun and Uronarti presented by Tufnell for types 2 and 4 (Tufnell 1975: Fig. 7: 313-15) were not made by design scarabs and are therefore not discussed in this chapter.⁵⁵

§IA 3e. Design class 3E – Panels

Design class 3E consists of patterns in which the plinth is divided vertically, usually into three compartments or panels, by means of single or double lines (Tufnell 1984: 122-23). The popularity of this design in the Palestinian series is attested in many variations (Tufnell 1984: Pls. 19-20), which Tufnell categorized under six subclasses (Tufnell 1984: 122-23). Variations of design class 3E also constitute the most common designs on Second Intermediate Period royal-name scarabs (Tufnell 1984: Pls. 56-61). The design is however almost completely absent in the late Middle Kingdom series, and is not known in the First Intermediate Period and early Middle Kingdom series.⁵⁶ A unique example from Uronarti (Reisner 1955: Fig. 8: 162), displaying vertical dividing lines differs from the Palestinian examples displaying design class 3E (below, § IIIA 3e). This scarab depicts linked spirals flanking two *ꜥnh* signs and displays an unusual combination of design classes 2B and 3B, which is also attested on an imported late Middle Kingdom scarab from Jericho (Kirkbride 1965: Fig. 288: 5). Tufnell correctly notes the close association of design class 3E with the formulae comprising design class 3C (1984: 124), and connects its absence at Kahun and Uronarti with the absence of design class 3C at both sites (Tufnell 1975: 72). As in the case of design class 3C, she attributes the absence of design class 3E at Kahun and Uronarti to chronological differences (1975: 72; 1984: 123-24). Evidence for the Canaanite origin of design class 3E, and the adaptation of many of its variations on Second Intermediate Period royal-name scarabs are discussed in detail below (§ IIA 3e, § IIIA 3e).

§IA 4. Design class 4 – Concentric circles

Tufnell's discussion of this design class refers to the entire corpus of the excavated series, and hardly considers the small number of examples at Kahun and Uronarti (Tufnell 1975: 72; 1984: 124-25). Based mainly on its distribution in the Palestinian series, Tufnell concludes that design class 4, which is first attested on scarabs of Ward's period 4,⁵⁷ continues throughout the Middle Kingdom and the Second Intermediate Period (1984: 124). It was however argued elsewhere (Ben-Tor 1998: 8-10; 2004c: 34) that the design, which originated in the early Middle Kingdom series, is extremely rare on late Middle Kingdom Egyptian scarabs, and that most examples found in the Palestinian series are Canaanite productions (below, § IIIA 4). The occurrence of the design on Second Intermediate Period scarabs in Egypt is discussed below (§ IIA 4).

The popularity of the design in the early Middle Kingdom series is attested by the fact that concentric circles occur on 32% of the Montet Jar scarabs and ovoids (Ward 1978b: 44). They are also found on seal impressions from Abu Ghalib (Ben-Tor 1998: 9, Fig. 2: 19-21), and on typical early Middle Kingdom ovoids from other sites (Ward 1978a: 57, and n. 235; Ward and Dever 1994: 91, and n. 10).⁵⁸ The design is not known to occur on First Intermediate Period scarabs or other types of design amulets.

Tufnell divides the variations of design class 4 into five categories, representing mainly the Montet Jar scarabs and the Palestinian series (Tufnell 1984: 124). These categories, however, have no chronological or geographical significance, as can be clearly seen in Tufnell's plates (Tufnell 1984: Pls. 21-22), where scarabs from the Montet Jar are placed in the same categories with typical Canaanite scarabs. Tufnell's categories do not reflect the distinct differences between the two groups, and are therefore not considered in this study. For the differences between the two groups see Ben-Tor 2004c: Fig. 6, and below § IIIA 4).

The late Middle Kingdom series includes a small number of examples displaying design class 4 at Kahun, Uronarti, Elephantine and el-Lisht (Tufnell 1975: Fig. 7: 317-22; Von Pilgrim 1996: Fig. 102: 90, 196, 242, 255, 293, 298; el-Lisht: MMA 09.180.913, 09.180.924, 22.1.367). Most these examples, however, show distinct early Middle Kingdom characteristics, such as dividing lines similar to those found on some of the Montet Jar scarabs (Tufnell 1975: Fig. 7: 318; Von Pilgrim 1996: Fig. 102: 242; MMA 09.180.913), a geometric zigzag-like decorative motif,⁵⁹ and particular patterns of linked circles.⁶⁰ The small-size circles on one of the Elephantine examples

⁵⁵ The examples presented as type 2 (Tufnell 1975: Fig. 7: 313-14) depict cartouches enclosing the name of Senwosret III on official seals sent from the fort at Semna West to Uronarti (Martin 1971: 146, No. 1876-77). The example presented as type 4 (Tufnell 1975: Fig. 7: 315) depicts a cartouche on a royal-name scarab of Neferhotep I of the 13th Dynasty.

⁵⁶ One example among the Montet Jar scarabs depicting two dividing vertical lines (Ward 1978a: Pl. 14: 352) was noted by Tufnell, who suggests it may have derived from the *nbty* motif (Tufnell 1984: 123). It seems, however, that the lines occurring on this particular scarab relate to design class 4 (below), which often appears with dividing lines on the Montet Jar scarabs (Ward 1978a: Pl. 14: 343-56).

⁵⁷ The Montet Jar group and related scarabs (Ward 1978a: 15).

⁵⁸ The royal-name scarabs bearing the names of Senwosret I, II, and III, on which concentric circles form a border (Tufnell 1984: 125, and note 36), are not contemporaneous with the reigns of these kings (below, § IB 1).

⁵⁹ Compare Tufnell 1975: Fig. 7: 317; Von Pilgrim 1996: Fig. 102: 242, with Ward 1978a: Pls. 9, 12: 249, 316.

(Von Pilgrim 1996: Fig. 102: 298) are otherwise attested only on examples from the Montet Jar (Ward 1978a: Pl. 14: 363, 365-67). The form of another example from Elephantine (Von Pilgrim 1996: Fig. 102: 196) suggests being stamped by an early Middle Kingdom ovoid of the type found among the Montet Jar scarabs with concentric circles (Tufnell and Ward 1966: Fig. 2: 53-58). The three examples from el-Lisht, which include two early Middle Kingdom type ovoids, show distinct early Middle Kingdom characteristics, with almost identical parallels in the Montet Jar.⁶¹ Only two examples from Uronarti display late Middle Kingdom designs (**Pl. 12: 22-23**), however, as already noted elsewhere (Ben-Tor 1998: 10), concentric circles do not constitute the dominant motif of their designs. One of them (**Pl. 12: 22**), depicting a symmetric arrangement of signs with a large *nb* at the bottom of the plinth, displays design class 3A3 (above), and the other (**Pl. 12: 23**) displays design class 5 (below).

The evidence discussed above argues against Tufnell's suggested development of design class 4. The design indeed originated (as noted by Tufnell) on scarabs attributed to Ward's period 4 (Ward 1978a: 15-18), which are now dated to the early 12th Dynasty (Ben-Tor 1998). The design is, however, extremely rare in the late Middle Kingdom series and the few attested examples show distinct early Middle Kingdom characteristics that argue for the use of early Middle Kingdom scarabs. The two clear late Middle Kingdom examples from Uronarti depicting concentric circles (**Pl. 12: 22-23**) display other designs, in which the concentric circles constitute a secondary motif.

§IA 5. Design class 5 – Cross patterns

Like concentric circles, cross patterns are first attested in the early Middle Kingdom series (Ward 1978a: 57, Pl. 15: 368-74).⁶² Tufnell notes that plants, spirals and concentric circles form the terminals of cross patterns on the Montet Jar scarabs (Tufnell 1984: Pl. 23: 2003-2010), indicating that designs merge into one another already in this early group (Tufnell 1984: 125). Examples depicting cross patterns from Kahun (**Pl. 12: 24-28**), Uronarti (**Pl. 12: 29-38**), Elephantine (**Pl. 12: 39-46**), Mirgissa fort (**Pl. 12: 47**), and el-Lisht (**Pl. 12: 48-49**) show a similar mixture of the cross pattern with plants and spirals, and rarely with concentric circles.

The particular variations of design class 5 noted above clearly show their development from the early Middle Kingdom patterns. However, most examples of design class 5 at Kahun and Uronarti include spirals as a secondary motif (**Pl. 12: 26-27, 29-34, 36-38**), and Tufnell correctly notes that the patterns of this design at both sites are more elaborate than those occurring on the Montet Jar scarabs (Tufnell 1984: 125). This observation also applies to the other examples found in the late Middle Kingdom series.⁶³

Tufnell notes (1984: 125) a close similarity between one of the Kahun examples with spiral terminals (**Pl. 12: 24**) and a scarab from the Montet Jar (Ward 1978a: Pl. 15: 373). The pattern on the Kahun example, as well as its small size, suggest an early Middle Kingdom date for the scarab used for this particular impression. A similar cross pattern comprising spirals is also found on one of the examples from Elephantine (**Pl. 12: 43**). The latter, however, displays a pattern of interlocking scrolls which is not known to occur in the early Middle Kingdom series, but is found on late Middle Kingdom examples of design class 2B (**Pl. 3: 28, 33**) and therefore more likely dates from the late Middle Kingdom.⁶⁴ Another example from Kahun, displaying a Byzantine-like cross (**Pl. 12: 25**), which is unique in the late Middle Kingdom series, has its closest parallel at Abu Ghalib (Larsen 1936: Fig. 9: 1934:389), and was therefore probably stamped by an early Middle Kingdom scarab (Ben-Tor 1998: 13).

Other examples of design class 5 in the late Middle Kingdom series seem to have been stamped by late Middle Kingdom scarabs; they display characteristics that are not found in the early Middle Kingdom series. These examples show that petals forming a rosette-like design constitute the most common form of cross pattern in this group (**Pl. 12: 27-32, 35-36, 38, 40, 44, 46-47**). Variations with lotus flowers are also found (**Pl. 12: 33, 41, 45, 48-49**). The late Middle Kingdom examples show a common combination of the cross pattern and spirals, sometimes displayed diagonally between the petals, and sometimes flank the cross on each side or above and below (**Pl. 12: 26-27, 29-33, 36-44**). Variations depicting the cross pattern comprising two petals, or flowers, and two hieroglyphs, are also found (**Pl. 12: 26, 37, 49**).⁶⁵ The Uronarti example with concentric circles (**Pl. 12: 34**) depicts the vertical

⁶⁰ Compare Tufnell 1975: Fig. 7: 322 with Ward 1978a: Pl. 14: 360; Von Pilgrim 1996: Fig. 102: 293 with Ward 1978a: Pl. 14: 344, 351, 355-6; Tufnell 1975: Fig. 7: 321, and Von Pilgrim 1996: Fig. 102: 255, with Larsen 1941: Fig. 11: 775.

⁶¹ Compare MMA 09.180.924 with Tufnell and Ward 1966, Fig. 2: 55-56, MMA 09.180.913 with Tufnell and Ward 1966: Fig. 2: 29, 31, and MMA 22.1.367 with Tufnell and Ward 1966: Fig. 2: 35-6, 40-41, 51-2.

⁶² See also Ben-Tor 1998: 10, 13.

⁶³ All the Elephantine examples originated in deposits attributed to strata 13-12, which are dated to the late Middle Kingdom.

⁶⁴ This impression originated in deposit 53a (Von Pilgrim 1996: 314), attributed to stratum XIII (Von Pilgrim 1996: 308) and dated to the late Middle Kingdom (Von Pilgrim 1996: 15).

⁶⁵ The particular pattern on the scarab from el-Lisht (MMA 22.1.457) includes a central knot, and displays a mixture of design classes 5 and 6 (below).

bar of the cross in a column-like form. The same form comprises both bars of the cross on an example from Elephantine (**Pl. 12: 39**).

In her study of the Kahun and Uronarti impressions, Tufnell notes the distinct differences between the versions of cross patterns at these sites compared with those found in the Palestinian series (Tufnell 1975: 73; below, § IIIA 5).

§IA 6. Design class 6 – Coiled and "woven" patterns

Tufnell's discussion of this design, as in the case of the other designs, refers mainly to the Palestinian series (Tufnell 1975: 73; 1984: 125-27). She divides design class 6 into three subclasses (A-C) further divided into subtypes reflecting the most common variations. In her study of the Kahun and Uronarti impressions, Tufnell merely states that the design is in short supply at Kahun and appears more frequently at Uronarti (Tufnell 1975: 73). The three main subclasses of the design are attested at both sites, though some of the subtypes found in the Palestinian series⁶⁶ are completely absent. Moreover, there are notable differences between most patterns attested at Kahun and Uronarti and those found in the Palestinian series, though categorized under the same subclasses by Tufnell (below, § IIIA 6, § IVA 6).

Tufnell's three main subclasses include: design class 6A – single line thread; design class 6B – convoluted coils; design class 6C – encompassed coils.

§IA 6a. Design class 6A – Single line thread

Tufnell's typology excludes a particular late Middle Kingdom pattern depicting single line loops (E.g. Reisner 1955: Figs. 9-10: 220-25, 227-30). The similarity between some examples depicting this pattern and those depicting the single line thread is apparent,⁶⁷ and this pattern is therefore categorized here under design class 6A, which is divided in this study into 6A1 – single line thread, and 6A2 – single line loops.

§IA 6a1. Design class 6A1

This design is first attested on two of the Montet Jar scarabs (Ward 1978a: Pl. 15: 378-79). In the late Middle Kingdom series it is found on five examples at Kahun (**Pl. 13: 1-5**), eleven at Uronarti (**Pl. 13: 6-15, 23**), four at Elephantine (**Pl. 13: 16-19**), two at Mirgissa fort (**Pl. 13: 20-21**), and one at el-Lisht (**Pl. 13: 22**). The thread is often combined with spirals (**Pl. 13: 5, 10-11, 13, 16-17, 22**), or appears in the upper or lower field of the plinth, which is divided by a horizontal double line (**Pl. 13: 1, 6-8, 12, 18-21**). The designs on the other part of the field in the latter pattern vary, and include the sign of union (**Pl. 13: 1, 6**),⁶⁸ plants (**Pl. 13: 2, 12**), addorsed red crowns (**Pl. 13: 23**), or double line thread (**Pl. 13: 18, 24**).⁶⁹ The single line thread is also attested in both upper and lower fields (**Pl. 13: 20-21**).

One fragmentary example from Kahun displays the single lined thread with a decorated oval (**Pl. 13: 3**).⁷⁰ The looped thread attached to oblong rings, and a net-like pattern, both from Uronarti (**Pl. 13: 9, 15**), are so far unique in the late Middle Kingdom series. The example from Uronarti displaying looped threads flanking a central vertical bar (**Pl. 13: 15**) is similar to a fragmentary example from Kahun (**Pl. 13: 2**), where the looped threads flank a central bar ending with a flower. The particular pattern on these two examples show close similarity to patterns comprising single line loops (**Pl. 13: 36-39**), particularly the one depicting the loops flanking a central bar with flowers at both ends (**Pl. 13: 39**).

Tufnell dates design class 6A1, which she considers an early stage in the evolution of coiled patterns, mainly to the 12th Dynasty (Tufnell 1984: 126). This conclusion is based on its distribution in the Palestinian series, which shows that more examples are found in the early series⁷¹ compared with the late series, where it is extremely rare. It is however argued below (§III) that the early Palestinian series are significantly later than the 12th Dynasty, and that most examples found in Palestine are Canaanite imitations of Egyptian late Middle Kingdom prototypes. The num-

⁶⁶ Design class 6C1 and 6C2.

⁶⁷ See for example nos. 230 and 232 in Reisner 1955: Fig. 10. The pattern occurring on an example from Kahun (Petrie, Brunton and Murray 1923: Pl. 65: 420) is in fact a single line thread divided by a horizontal line in the middle.

⁶⁸ Contradicting Tufnell's statement that this combination, which occurs in the Palestinian series (Tufnell 1984: Pl. 24: 2059-61), is not found at Kahun and Uronarti (Tufnell 1984: 126).

⁶⁹ One of these examples (**Pl. 13: 24**) displays a double line thread in the lower field and two falcons in the upper field, indicating that the single and double line threads are interchangeable.

⁷⁰ See design class 6B3 below.

⁷¹ Dated by Tufnell mainly to the 12th Dynasty (below, introduction to chapter III).

ber of examples bearing this design at Uronarti and Elephantine,⁷² compared with those found in the early Middle Kingdom series also argues against Tufnell's suggested date.

§IA 6a2. Design class 6A2 – Single line loops

The absence of this design in the early Middle Kingdom series strongly argues for its origin on late Middle Kingdom scarabs. The close resemblance of some patterns of this design and patterns depicting a single line thread suggests that design 6A2 may have developed from design 6A1. The form of the loops is identical with the stylized *s3* sign (Keel 1995a: 168, § 445, Figs. 283-83),⁷³ and some examples of design class 6A2 (e.g. **Pl. 13: 28-29, 41-45**) suggest an association with this sign rather than with the single line thread, indicating a mixture of the two motifs.

Five examples depicting design class 6A2 were found at Kahun (**Pl. 13: 25-29**), ten at Uronarti (**Pl. 13: 30-39**), six at Elephantine (**Pl. 13: 40-45**), four at Mirgissa fort (**Pl. 13: 46-49**), two at el-Lisht (**Pl. 13: 50-51**), and one each at Harageh (**Pl. 13: 52**) and Nubt (**Pl. 13: 53**). Two of the Elephantine examples (**Pl. 13: 42-43**) were found in deposits attributed to strata 14 and d, which are dated by the excavator between Senwosret I to Senwosret III (Von Pilgrim 1996: 15). Considering the complete absence of design 6A2 in the early Middle Kingdom series, the Elephantine examples if they are not intrusions may belong in the latest phase of these strata – the time of Senwosret III.

§IA 6b. Design class 6B – Convoluted coils

Tufnell divides this design into three subclasses: 6B1 – convoluted coils, 6B2 – convoluted coils, knot-like, 6B3 – convoluted coils, varia.

The differences between patterns categorized under subclasses 6B1 and 6B2 are not always clear, and refer mainly to variations found in the Palestinian series (Tufnell 1984: 126, Pls. 24-5). The distinction between 6B1 and 6B2 is meaningless in the late Middle Kingdom series, where patterns attributed to design class 6B2 are extremely rare (Tufnell 1975: Fig. 8: 367-70), and differ from those found in the Palestinian series. Subclasses 6B1 and 6B2 are therefore discussed in this chapter as one.

§IA 6b1. Design class 6B1-2 – Convoluted coils

Like the single line thread, this design is first attested in the early Middle Kingdom series, displaying relatively simple patterns (Ward 1978a: 58; Ben-Tor 1998: 10-11). The late Middle Kingdom series includes more variations, with more elaborate patterns that are not attested in the earlier group. The design is quite common in the late Middle Kingdom series: Twenty-two examples displaying convoluted coils were found at Uronarti (**Pl. 14: 1-22**), seven each at Kahun (**Pl. 14: 23-29**), and Elephantine (**Pl. 14: 30-36**),⁷⁴ four at Mirgissa fort (**Pl. 14: 37-40**) and one at Harageh (**Pl. 14: 41**). The design frequently comprises elaborate twisted patterns, yet it is rarely combined with other motifs. Rare exceptions include the unique example from el-Lisht depicting it with design class 5 (**Pl. 14: 42**) and a few examples including one or two hieroglyphs (**Pl. 14: 5, 10, 19-21, 24, 31**).

§IA 6b2. Design class 6B3 – Convoluted coils, varia

Tufnell categorized under this design class a particular pattern of convoluted coils displaying two decorated ovals at both ends of the plinth (**Pl. 14: 43**). This pattern of convoluted coils is less common than those comprising design class 6B1-2. It is found on two fragmentary examples at Kahun (**Pl. 14: 44-45**), one example at Harageh (**Pl. 14: 46**), one at Mirgissa fort (**Pl. 14: 47**), and two at Elephantine (**Pl. 14: 48-49**). This type of decorated oval, or less frequently circle, is also found in the late Middle Kingdom series in combination with Egyptian signs and symbols (**Pl. 5: 60, Pl. 10: 35, Pl. 11: 22-23**) and with the single line thread (**Pl. 13: 3**).

Decorated ovals are not attested in the early Middle Kingdom series assembled by Ward (1978a), but they occur on two scarabs from early Middle Kingdom graves at Mostagedda (Brunton 1937: 113-14, Pl. 69: 8-9),⁷⁵ and on a typical early Middle Kingdom ovoid from Elephantine (Von Pilgrim 1996: Fig. 104: 296). The latter displays two

⁷² Three of the Elephantine examples (**Pl. 13: 16, 18-19**) were found in deposits attributed to stratum 13, which is dated to the late Middle Kingdom.

⁷³ The sign is frequently found in late Middle Kingdom designs, alone or in symmetric arrangements, sometimes decorated with lines (e.g. Tufnell 1975: Figs. 2, 4: 3, 9, 13, 16, 239, 242-43).

⁷⁴ All originated in late Middle Kingdom deposits except No. 35, which was found in deposit 31 (Von Pilgrim 1996: 313) that is attributed to stratum 14 (Von Pilgrim 1996: 306) and dated between Senwosret I and III (Von Pilgrim 1996: 15).

⁷⁵ Brunton (1937: 113) notes that distinct Middle Kingdom characteristics known from cemeteries at el-Lisht, Riqqeh, Harageh, and el-Lahun – now largely attributed to the late Middle Kingdom (above, table 1) – are not attested at Qau and Badari or Mostagedda. He points out, however, a small group of graves that yielded finds, including scarabs, which he dates to the 12th Dynasty. The scarabs, displayed on Pl. 69: 1-11, include two First Intermediate Period (Nos. 4-5) and seven early Middle Kingdom examples (Nos. 3, 6-11) including the two examples bearing decorated ovals.

decorated ovals in combination with *nh* *k3* and *nfr* signs, a combination that is well attested in the early Middle Kingdom series (Ward 1978a: 56; Ben-Tor 1998: 7-8). The impression originated in deposit 33 (Von Pilgrim 1996: 314), which is attributed to stratum 14 (Von Pilgrim 1996: 306), dating between Senwosret I-III (Von Pilgrim 1996: 15). Another relatively early example is a scarab from tomb KT 21 at Mirgissa, depicting two decorated ovals flanking a *k3* enclosing a *nfr* surmounting three stylized *s3* signs (Vercoutter 1970: Pl. 26: 28). The scarab was found with 12th Dynasty pottery.⁷⁶

§IA 6c. Design class 6C – Encompassed coils

Based on the variations found in the Palestinian series, Tufnell divides design class 6C into three subclasses: 6C1 – encompassed, central 'x' cross; 6C2 – encompassed, central twist; 6C3 – encompassed, central cable (Tufnell 1984: 126-27). Only subclass 6C3 is attested at Kahun and Uronarti (Tufnell 1975: Fig. 9: 373-77), and at other late Middle Kingdom sites. The discussion of design class 6C in this chapter therefore includes only subclass 6C3.

§IA 6c1. Design class 6C3 – Encompassed coils, central cable

This design is less common than design class 6B1-2 in the late Middle Kingdom series: Three examples are found at Kahun (Pl. 15: 1-3), five at Uronarti (Pl. 15: 4-8), four at Elephantine (Pl. 15: 9-12), four at Mirgissa fort (Pl. 15: 13-16), and one at el-Lisht (Pl. 15: 17). Most patterns comprise three parallel cables, sometimes linked, displayed vertically. Other variations display only one cable (Pl. 15: 6, 11, 17), or depict the central cable horizontally, combined with twisted patterns similar to those found in examples of design class 6B1-2 (Pl. 15: 4, 8). Like most other subclasses of design class 6, patterns comprising design 6C3 are not combined with other motifs, except for a few cases where hieroglyphs are included (Pl. 15: 2, 5-6, 10-11, 14-15).

§IA 7. Design class 7 – Scroll borders

Ward (1978: 58) attributes the initial occurrence of this design to three isolated First Intermediate Period and early Middle Kingdom examples (Ward 1978a: Pl. 15: 382-83, Fig. 7: 4). It can however be argued that the particular designs on two of these examples (Ward 1978a: Fig. 7: 4, and Pl. 15: 382) depict patterns of linked scrolls and in fact display variations of design class 2B. The design on the scarab from Mostagedda (Ward 1978a: Pl. 15: 383)⁷⁷ indeed resembles a particular type of paired scroll border that is attested in the late Middle Kingdom series (Tufnell 1975: Fig. 9-10: 395-97). However, its resemblance to an early Middle Kingdom patterns of design class 2B displaying a combination of linked scrolls and *nfr* signs (Ward 1978a: Pl. 10: 270), suggests a variation of design class 2B rather than an actual scroll border. The fact that no other type of scroll border is attested in the early Middle Kingdom series further supports attributing this pattern to design class 2B.

Tufnell's discussion of this design concerns the entire corpus of the excavated series and deals primarily with the Palestinian series (Tufnell 1975: 73; 1984: 127-31). Tufnell divides the variations of design class 7 into three main categories (1984: 127):

7A – Continuous band of identical scrolls following the inner outline of the scarab

7B – Paired scrolls, with a loop at the top with a curved line uniting the sides at the base

7C – Paired scrolls, when the loop at the top and /or base is broken or omitted

She further makes distinctions between round and oblong scrolls (noted i, ii), between hooked and fully joined scrolls (noted a, b), and between one, two, three and four paired scrolls (noted 1-4), arriving at twenty-three categories (Tufnell 1984: 127-31).

Tufnell's distinctions, though not always of equal significance, are usually followed in this study as they provide a convenient framework that helps distinguish chronological and geographical differences. It is however argued here that Tufnell's distinction between hooked and joined scrolls is of minimal significance for most variations of design class 7 in the late Middle Kingdom. The relatively small number of late Middle Kingdom design scarabs displaying scroll borders is sometimes misleading with regard to the existence or distribution of hooked and joined scrolls on certain subclasses. This is further indicated by the variations found on the much larger number of late Middle Kingdom private-name scarabs displaying scroll borders (Martin 1971: Pls. 1-16)⁷⁸ compared with contemporaneous design scarabs (Tufnell 1975: Figs. 9-10). Considering this distribution of scroll borders on late Middle Kingdom scarabs, the types of scroll borders attested on private-name scarabs are presented in this chapter as evidence for the existence and/or popularity of particular variations.

⁷⁶ I thank Christa Mlinar for the information concerning the date of this tomb.

⁷⁷ And an identical example from Abu Ghalib (Larsen 1936: Fig. 9: 1932:1).

⁷⁸ For the late Middle Kingdom date of these scarabs see below (§IB 3).

Tufnell's suggested dates for the variations of design class 7 are based primarily on their distribution in the Palestinian series, and are frequently not accepted in this study. As the discussion of these variations in this chapter deals only with the late Middle Kingdom series, most of Tufnell's chronological discussions are not considered here and are discussed below (§III A 7, §IV A 7).

§IA 7a. Design class 7A – Continuous scroll border

Tufnell divides this design into two main subclasses: 7A1 – continuous round scrolls; 7A2 – continuous oblong scrolls.⁷⁹

§IA 7a1. Design class 7A1– Continuous, round scrolls

This design is attested in the late Middle Kingdom series on a relatively small number of design scarabs. As argued above (design class 2B), continuous scroll borders, especially those comprising round scrolls, most probably developed from patterns of linked scrolls. This can be seen in examples displaying designs that can be categorized under either design class 2B or 7A1 (Pl. 3: 15, 37, 41). It is also indicated by variations of design class 2B depicting one or two hieroglyphs enclosed by linked scrolls (Pl. 3: 60, 65, Pl. 4: 9, 11, 25, 56-60).

In her study of Kahun and Uronarti, Tufnell presents only one design scarab from Uronarti with a continuous round scroll border (1975: Fig. 9: 378), displaying hooked scrolls, and no example displaying joined scrolls. Design scarabs displaying design class 7A1 are not very common in the late Middle Kingdom series. There is one example each at Kahun (Pl. 15: 18) and Nubt (Pl. 15: 19), two at Uronarti (Pl. 15: 20-21), four at Mirgissa fort (Pl. 15: 22-25), and two at Elephantine (Pl. 15: 26-27). Most examples display the scroll border enclosing between one to four hieroglyphs that usually include combinations with the sign *nfr* (Pl. 15: 18-19, 22-25, 27), or depict the *nfr* alone (Pl. 15: 21).

These examples clearly display more hooked than joined scrolls: The Uronarti, Elephantine and Mirgissa examples display hooked scrolls, and the example from Nubt displays joined scrolls. The example from Kahun, if drawn accurately, is of particular interest, showing most remaining scrolls joined, except for the one on the lower left side, which is hooked. The Late Middle Kingdom private-name scarabs displaying this design that were assembled by Martin (1971: Pl. 1) include fourteen examples with hooked scrolls and ten examples with joined scrolls. These indicate that design class 7A1 occurs on late Middle Kingdom scarabs with both hooked and joined scrolls, and suggest that the two types were produced simultaneously. The fact that more examples with hooked scrolls are attested may merely reflect accident of survival.

There is in fact evidence to suggest that hooked and joined scrolls appeared at the same time on early Middle Kingdom ovoids depicting linked round scrolls enclosing hieroglyphs. One of these examples is an impression from Elephantine (Pl. 15: 28) depicting the typical early combination of *k3 nfr* enclosed by linked round hooked scrolls. The impression was found in deposit 31 (Von Pilgrim 1996: 314) attributed to stratum 14 (Von Pilgrim 1996: 306) and dated between Senwosret I-III (Von Pilgrim 1996: 15). An almost identical design, depicting joined scrolls, occurs on an ovoid at University College, which Petrie includes in a group he terms mid-pieces (Petrie 1925: Pl. 7: 4).⁸⁰ Petrie presents three other mid-pieces displaying similar linked-scrolls designs (1925: Pl. 7: 1-3), and correctly considers all four examples as variations of the same basic design (Petrie 1925: 9). The Elephantine and University College examples, though displaying a pattern that is better described as linked scrolls rather than a scroll border, attest to the early Middle Kingdom date of both hooked and joined scrolls.⁸¹

§IA 7a2. Design class 7A2 – Continuous, oblong scrolls

This design is notably more common than design 7A1 on late Middle Kingdom design scarabs. Thirteen examples were found at Kahun (Pl. 15: 29-41), eleven at Uronarti (Pl. 15: 42-52), five at el-Lisht (Pl. 15: 53-57), three at Elephantine (Pl. 15: 58-60),⁸² one at Nubt (Pl. 15: 61), and seven at Mirgissa fort (Pl. 16: 1-7). Just as in the case of design class 7A1, these examples display the continuous oblong scroll border enclosing between one to four hieroglyphs that usually comprise combinations with the sign *nfr*. These include *nfr r^c* (Pl. 15: 34-36, 47, 54-58, 60,

⁷⁹ This division differs from Tufnell's marking of the distinction between round and oblong scrolls in the other subclasses of design class 7 (i and ii). This study follows Tufnell's original subclasses merely to avoid confusion.

⁸⁰ These mid-pieces constitute in fact the typical early Middle Kingdom ovoids.

⁸¹ An ovoid from University College London bearing a private name enclosed in a similar pattern of linked round scrolls (Martin 1971: Pl. 46: 13) is made of felspar, and should therefore not be dated earlier than the late Middle Kingdom (Ward 1978a: 34-5; Martin 1971: 192).

⁸² No. 58 originated in deposit 58a (Von Pilgrim 1996: 312), which is attributed to stratum XIV (Von Pilgrim 1996: 310) and dated between Senwosret I and III (Von Pilgrim 1996: 15). The other two examples come from deposits attributed to the late Middle Kingdom.

Pl. 16: 1), *nfr* and *°nlh* (**Pl. 15: 42, 45, 52**), *nfr* and *k3* (**Pl. 15: 40, Pl. 16: 2-3, 5**), or just *nfr* (**Pl. 15: 32, 51, 53, 55, 59, Pl. 16: 4, 7**). Examples displaying other signs, such as *dd*, *w3d*, and *w3h* are also attested (**Pl. 15: 30, 48-50**). Unlike design class 7A1, the distribution of hooked and joined scrolls in design class 7A2 on design scarabs is about the same, corroborating the minimal significance of this distinction in the late Middle Kingdom series.⁸³

One of the Kahun impressions displays the continuous oblong scroll border enclosing the name of Amenemhat III of the late 12th Dynasty (Tufnell 1975: Fig. 9: 386). It is argued below (§IB 1) that many of the scarabs bearing the name of this king are probably contemporaneous with his reign, and this impression may therefore argue for the occurrence of design class 7A2 already in the late 12th Dynasty.

§IA 7b. Design class 7B – Paired scroll borders with a loop at the top and a curved line at the base

Tufnell divides paired scroll borders into four categories based on the number of paired scrolls, from one to four pairs respectively (Tufnell 1984: 128-29). As in the case of design class 7A, she further divides each type into round and oblong scrolls, and into hooked and joined scrolls. The scarcity of design scarabs displaying paired scrolls at Kahun and Uronarti can be clearly seen in Tufnell's study of the impressions from these sites (1975: Figs. 9-10), where most examples constitute private-name scarabs. The popularity of paired scroll borders on late Middle Kingdom private-name scarabs is attested in the examples assembled by Martin (1971: Pls. 3-16). Considering the relatively small number of late Middle Kingdom design scarabs displaying design class 7B, the discussion in this chapter often refers to contemporaneous private-name scarabs as evidence for the popularity of particular types during this period.

§IA 7b1. Design class 7B1(ii) – Paired scrolls, one pair, oblong

Paired scroll borders comprising one pair are not known to occur with round scrolls, and are only found with oblong scrolls. A small number of design scarabs displaying this design are found in the late Middle Kingdom series: Two examples each were found at Kahun (**Pl. 16: 8-9**) and Uronarti (**Pl. 16: 10-11**), and one example was found at Elephantine (**Pl. 16: 12**).⁸⁴ The design is also attested, though rarely, on private-name scarabs (**Pl. 16: 13-15**). Both impressions from Kahun display early Middle Kingdom characteristics, such as the combination of the *k3 nfr* (**Pl. 16: 9**) and the particular form of the sign *°nlh* (**Pl. 16: 8**) found on early Middle Kingdom examples (Larsen 1936: Fig. 9: 1934: 194; Ward 1978a: Pls. 11-12: 276, 280, 315, 319-20). It is also interesting to note that both impressions depict the design in longitudinal setting, as on the early Middle Kingdom scarabs from Abu Ghalib and Mostagedda (Larsen 1936: Fig. 9: 1932:1; Ward 1978a: Pl. 15: 383) noted above (design class 2B). The other late Middle Kingdom examples of design class 7B1(ii) – both design and private-name scarabs (**Pl. 16: 10-15**), display the design in vertical setting. These characteristics suggest that the Kahun impressions were stamped by early Middle Kingdom scarabs displaying the same patterns of linked scrolls as those occurring on the scarabs from Abu Ghalib and Mostagedda.

The two examples from Uronarti show the scroll border enclosing typical late Middle Kingdom variations of design class 3. One (**Pl. 16: 11**) depicts the child hieroglyph with a *nfr*, as on an Uronarti example categorized here under design class 3A3 (**Pl. 7: 40**). The other (**Pl. 16: 10**) depicts a variation that can be categorized under design class 3B3 (**Pl. 8: 47**) and 3B6 (**Pl. 11: 9**). The Elephantine example (**Pl. 16: 12**) displays the design enclosing three *nfr* signs. A similar arrangement of three *nfr* signs occurs on an example from Uronarti displaying design class 3B4 (**Pl. 9: 8**). A central motif comprising three identical signs is found on other typical late Middle Kingdom designs (**Pl. 9: 3, 13, Pl. 10: 23, 44**).

The distinction between hooked and joined scrolls has no significance for this design class in the late Middle Kingdom series: the Kahun examples display one of each type, the Uronarti examples display hooked scrolls and the Elephantine example displays joined scrolls.⁸⁵ The scarcity of one paired scroll border on late Middle Kingdom design and private-name scarabs clearly indicates its lesser popularity during this period compared with other types of paired scroll borders.

§IA 7b2. Design class 7B2(ii) – Paired scrolls, two pairs, oblong

As in the case of design class 7B1, no examples of design class 7B2 are attested with round scrolls (Tufnell 1984: 128). Examples displaying this design with oblong scrolls are found in the Palestinian series (Tufnell 1984: Pl. 30:

⁸³ Martin presents a private-name scarab with design class 7A2, where the scroll border includes both hooked and joined scrolls (Martin 1971: Pl. 2: 19).

⁸⁴ It was found in deposit 20a (Von Pilgrim 1996: 313), attributed to stratum 13 (Von Pilgrim 1996: 304) and dated to the late Middle Kingdom (Von Pilgrim 1996: 15).

⁸⁵ The three private-name scarabs with design 7B1 presented by Martin (1971: Pl. 3: 5-7 = **Pl. 16: 13-15**) display both hooked (no. 5) and joined (nos. 6-7) scrolls.

2308-31), but the design is extremely rare on design scarabs and private-name scarabs in the late Middle Kingdom series.⁸⁶ The private-name scarabs assembled by Martin include only one example displaying this design – an amethyst private-name scarab from Tell el-`Ajjul (**Pl. 16: 17**). The isolated private-name example from `Ajjul, which undoubtedly constitutes an Egyptian Middle Kingdom import at that site (Martin in Tufnell 1984: 147; Ben-Tor 1994: 13, no. 5), is of exceptionally small size, and the two- paired scroll border probably replace the common three-paired type for lack of space.⁸⁷ This is supported by the single example of late Middle Kingdom royal-name scarab bearing the design (enclosing the throne name of Senwosret III), which is only 1.3 cm long (Ben-Tor 2004b: Fig. 17). The Canaanite origin of the scarabs displaying design class 7B2 in the Palestinian series is discussed below (§IIIA 7b2, §IVA 7b2).

§IA 7b3. Design class 7B3(i) – Paired scrolls, three pairs, round

This design is completely absent in the late Middle Kingdom series on design scarabs as well as private-name scarabs. Martin presents three unprovenanced private-name scarabs bearing this design (**Pl. 16: 18-20**), all of them displaying hooked scrolls. No example with joined scrolls is known (Tufnell 1984: 129).

Design class 7B3(ii) – Paired scrolls, three pairs, oblong

In contrast to three-paired scroll borders with round scrolls, design class 7B3(ii) constitutes the most common late Middle Kingdom type of scroll border. It is important to note, however, that the design is found almost exclusively on private-name scarabs of this period, and is extremely rare on contemporaneous design scarabs: The only known excavated example comes from debris in the north pyramid complex at el-Lisht (**Pl. 16: 21**). The scarab is made of obsidian, which strongly suggests a late Middle Kingdom date (Keel 1995a: 148, § 391).⁸⁸

The unique example from Kahun presented by Tufnell (**Pl. 16: 22**) is better described as a variation of design class 2B (see **Pl. 4: 28**). Private-name scarabs bearing design class 7B3(ii) are attested in every site of the late Middle Kingdom series: seven examples are found at Kahun (**Pl. 16: 23-29**), eighteen at Uronarti (**Pl. 16: 30-42**, **Pl. 17: 1-5**), five each at Elephantine (**Pl. 17: 6-10**), Nubt (**Pl. 17: 11-15**), and the mortuary complex of Senwosret III at Abydos (**Pl. 17: 16-20**), two at Harageh (**Pl. 17: 21-22**), and ten at Mirgissa fort (**Pl. 17: 23-32**). The large number of private-name scarabs bearing this design clearly attests to its popularity on late Middle Kingdom private-name scarabs (Martin 1971, Pls. 5-16). These examples show both hooked and joined scrolls, in a more or less equal distribution.

The earliest securely dated example of design class 7B3(ii) is a lapis lazuli royal-name scarab of Amenemhat III, found among the jewelry treasure of princess Sit-Hathor Yunet in the pyramid complex of Senwosret II at el-Lahun (Winlock 1934: 56, Pl. 12: D; Tufnell 1984: Pl. 53: 3085).

§IA 7b4. Design class 7B4(i) – Paired scrolls, four (or more) pairs, round

This design is not attested on a single design scarab in the late Middle Kingdom series. It occurs, however, on a small number of private-name scarabs from this corpus: one example was found at Uronarti (**Pl. 17: 33**), one at el-Lisht (**Pl. 17: 34**),⁸⁹ and three at Mirgissa fort (**Pl. 17: 35-37**). The examples assembled by Martin indicate that the design was quite popular on late Middle Kingdom private-name scarabs, its use notably exceeding that of three-paired round scroll borders (Martin 1971: Pls. 3-5). As in the case of the three-paired round scroll border, no example of design class 7B4(i) with joined scrolls is attested (Tufnell 1984: 129). The absolute date of the unprovenanced royal-name scarab of Senwosret III bearing this design (Tufnell 1984: Pl. 52: 3064) is uncertain (below, §IB 1).

Design class 7B4(ii) – Paired scrolls, four (or more) pairs, oblong

This design is not found on any design or private-name scarab in the late Middle Kingdom series. Moreover, only one example, displaying five pairs of joined scrolls, is recorder by Martin (**Pl. 17: 38**). The evidence thus indicates that design class 7B4(ii) was hardly ever used on late Middle Kingdom Egyptian scarabs.

⁸⁶ An isolated design scarab bearing this design was found at Mostagedda (**Pl. 16: 16**). The scarab is presented with Second Intermediate Period examples; however, the excavator states that it was found in a tomb of Middle Kingdom type (Brunton 1937: 127). A late Middle Kingdom date is also suggested by the scarab's features (below, §B 4-5).

⁸⁷ Tufnell considers another private-name scarab in Martin's corpus (Martin 1971: Pl. 5: 8) as displaying design class 7B2 (Tufnell 1984: 129, 144, n. 73, 168), however, the loop at the base of this example is omitted and this scarab therefore displays design class 7C2, and most probably dates from the Second Intermediate Period (below, §IIA 7c).

⁸⁸ The great majority of scarabs of the first half of the second millennium BCE are made of steatite (Tufnell 1984: 38-9; Keel 1995a: 147-48, § 386-89).

⁸⁹ For the 13th Dynasty date of this scarab see **Pl. 22: 9**.

§IA 7c. Design class 7C – Paired scrolls, with broken or omitted loop at the top and/or base

Most subclasses of this design are completely absent on late Middle Kingdom design and private-name scarabs. Moreover, particular variations of subclasses 7C2ii and 7C3ii constitute a distinct characteristic of royal-name and private-name scarabs of the Second Intermediate Period (Tufnell 1984: 130, and below, §IIB 1). The few late Middle Kingdom examples displaying design class 7C constitute exclusively variations of design class 7C3ii.⁹⁰

§IA 7c1. Design class 7C3(ii) – Paired scrolls, open, three pairs, oblong

This is the only subclass of design 7C for which Tufnell presents three examples from Kahun and Uronarti (1975: Fig. 10: 415-17). These include two design scarabs displaying three linked oblong scrolls on either side of the central motif (**Pl. 18: 1-2**). This particular pattern is not attested on other examples in the late Middle Kingdom series, but it is found on a small number of late Middle Kingdom private-name scarabs (**Pl. 18: 3-8**). The private-name scarab from Uronarti categorized by Tufnell under design class 7C3(ii) (Tufnell 1975: Fig. 10: 417) most probably displays design class 7B3(ii).⁹¹ The omitted loop at the top may reflect an incomplete impression of the scarab on the clay.

Another variation of design class 7C3(ii), which is not attested in the late Middle Kingdom series, depicts the paired scrolls as two confronted serpents. This pattern is not known to occur on late Middle Kingdom design scarab, but it is found on a small number of private-name scarabs (**Pl. 18: 9-10**), and a few late 12th Dynasty royal-name scarabs (Tufnell 1984: 130, Pls. 52-3: 3065, 3094-95). One of the royal-name examples (no. 3065), an amethyst scarab bearing the name of Senwosret III, was found among the jewelry of princess Sit Hathor in the pyramid complex of that king at Dahshur (De Morgan 1895: 62, no. 19, Fig. 132). Two almost identical examples made of amethyst, bearing the throne name and birth name of Amenemhat II, were found among jewelry of queen Weret in the pyramid complex of Senwosret III at Dahshur (Oppenheim 1995: 10-11; 1996: 26). Although bearing the names of Amenemhat II, these scarabs most probably date from the time of their interment not earlier than the reign of Senwosret III considering the complete absence of scroll borders on early Middle Kingdom scarabs (Ben-Tor 2004b).⁹²

A rare variation of design class 7C3(ii) is found on isolated private-name scarabs (**Pl. 18: 11**), depicting the paired scrolls ending with floral buds.⁹³

§IA 8. Design class 8 – Rope borders

Tufnell divides this design into three main subclasses (1984: 131):

8A – "twisted" strand, achieving the appearance of a "rope" by engraving diagonals between the outlines.

8B – "barred" strand, with strokes at right angles joining the delimiting lines of "rope".

8C – full "twisted" cable border.

The distinction between subclasses 8A and 8B is often unclear. Examples categorized by Tufnell under design class 8B merely display slightly more schematic forms of the twisted strand, which are in many cases impossible to distinguish from examples categorized by her under design class 8A.⁹⁴ Moreover, the distinction between subclasses 8A and 8B has no chronological, geographical or other significance. Therefore, the typology proposed in this study does not include design class 8B, and considers schematic twisted strands as variations of design class 8A. The discussion however follows Tufnell's original subclasses 8A, and 8C to avoid confusion.

§IA 8a. Design class 8A – Twisted strand

Tufnell divides this subclass into two types: 8A – single twisted strand, and 8AA – double twisted strand (1984: Pl. 34). Both types are attested on late Middle Kingdom design scarabs and private-name scarabs, though more examples of the latter are known. Seven examples were found at Kahun: two design scarabs (**Pl. 18: 12-13**), and five private-name scarabs (**Pl. 18: 14-18**). Twelve examples were found at Uronarti: five design scarabs (**Pl. 18: 19-23**), and seven private-name scarabs (**Pl. 18: 24-30**). Two examples were found at Elephantine: one design scarab (**Pl. 18: 31**), and one private-name scarab (**Pl. 18: 32**). Three were found at el-Lisht: one design scarab (**Pl. 18: 33**) and two private-name scarabs (**Pl. 18: 34-35**). Three were found at Nubt: one design scarab (**Pl. 18: 36**), and two private-name scarabs (**Pl. 18: 37-38**), and three at Mirgissa fort: one design scarab (**Pl. 18: 39**), and two private-name scarabs (**Pl. 18: 40-41**). Two private-name scarabs were found at Harageh (**Pl. 18: 42-43**), and one private-name

⁹⁰ Which are notably different from those found on Second Intermediate Period scarabs.

⁹¹ See Martin 1971: Pl. 14: 33.

⁹² For royal-name scarabs bearing names of early 12th Dynasty king see below, §IB 1.

⁹³ See also Martin 1971: Pl. 16: 22.

⁹⁴ As for example the distinction between Tufnell 1975: Fig. 11: 421 (8A) and no. 428 (8B), or most examples in Tufnell 1984: Pl. 34 (8A) and Pl. 35 (8B).

scarab was found in the mortuary complex of Senwosret III at Abydos (**Pl. 18: 44**). The examples assembled in Martin's corpus reflect the popularity of types 8A and 8AA on late Middle Kingdom private-name scarabs, and show a slight preference for type 8A (Martin 1971: Pls. 37-40). A small number of late Middle Kingdom private-name scarabs display design class 8A enclosing other types of borders, such as scroll borders (Martin 1971: Pl. 39: 10-12), and borders comprising hieroglyphs (Martin 1971: Pl. 39: 13-14; above, design class 3A3).

The central motif enclosed in the single or double twisted strand on late Middle Kingdom design scarabs frequently constitutes the sign *nfr* or the combination *nfr r^c* (**Pl. 18: 12, 19-20, 31, 33, 36**). Examples displaying other signs (**Pl. 18: 13, 21**) or symmetric patterns (**Pl. 18: 22, 39**) are also attested.

Tufnell notes the occurrence of the design on a number of royal-name scarabs bearing the names of Senwosret III and Amenemhat III (Tufnell 1984: 131),⁹⁵ pointing out the crude and/or abbreviated form of the name of Senwosret III on most examples. These flaws, as well as the particular form of the sign *k3* on two examples (Tufnell 1984: Pl. 52: 3068, 3070),⁹⁶ argue for the posthumous production of these scarabs (Ben-Tor 2003: 242). The scarab bearing the name of Amenemhat III presented by Tufnell (1984: Pl. 53: 3088) may be contemporaneous with the reign of this king (below, § IB 1). Tufnell states that considering the occurrence of design class 8A on late 12th Dynasty royal-name scarabs, and its almost complete absence on later royal-name scarabs of the first half of the second millennium, its date should be confined between ca. 1900-1800 (Tufnell 1984: 131). However, she notes that design class 8A is often associated with the significantly later examples bearing design classes 9 and 10 in the Palestinian series (1984: 131). Tufnell's discussion does not consider the late Middle Kingdom origin of the design, which is completely absent in the early Middle Kingdom series. It further ignores its popularity on 13th Dynasty private-name scarabs (Martin 1979: 222: 59-63),⁹⁷ and the Canaanite origin of most Palestinian examples displaying it (below, § IIIA 8a, § IVA 8a).

§IA 8b. Design class 8C – Full "twisted" cable

This design class is far less common than design class 8A. It is not found on any late Middle Kingdom design scarab, and Martin's corpus presents only two complete examples and two fragmentary examples displaying this design on private-name scarabs (**Pl. 19: 1-4**). The form of the twisted cable is in fact identical to that of the encompassed cables categorized under design class 6C3 (above), and most probably constitutes a variation of this design. The close similarity between the two designs is clearly seen in examples displaying three linked cables (**Pl. 15: 1, 5, 12, 16**), and in private-name scarabs displaying twisted cables on either side of the inscription (Martin 1971: Pl. 17: 3-6, 10-12). The notable resemblance between the latter and examples bearing design class 8C (Martin 1971: Pl. 17: 1-2, 7-8) made Martin categorize them as variations of the same type.

Tufnell dates design class 8C earlier than design class 8A, based mainly on the more naturalistic depiction of the twisted rope and on its occurrence on a royal-name scarab bearing the name of Senwosret I (Tufnell 1984: 131, Pl. 51: 3030). However, the Senwosret I scarab is not contemporaneous with this king's reign (below, § IB 1), and the absence of design class 8C in the early Middle Kingdom series indicates its origin on late Middle Kingdom scarabs.

§IA 9. Design class 9 – Animals and heraldic beasts

In her discussion of design class 9 at Kahun and Uronarti, Tufnell states that representations of animals filling most of the space on the plinth are confined to a couple of examples from Kahun depicting lions (Tufnell 1975: 74, Fig. 11: 430-31 = **Pl. 19: 5-6**). She also notes four examples depicting the hippopotamus goddess Taweret⁹⁸ at Uronarti (Reisner 1955: Fig. 16: 420-23 = **Pl. 19: 7-10**), but does not include them in her typology due to the absence of this image in the Palestinian series (Tufnell 1975: 74).⁹⁹ The scarcity of animal designs at Kahun and Uronarti, and in the other late Middle Kingdom groups (below), stands in complete contrast to the large number of examples displaying various animal designs in the Palestinian series (Tufnell 1984: 131-34). Tufnell suggests a regional and/or chronological difference (1975: 74), but she does not make any further attempt to explain it.

In her discussion of design class 9 in the Palestinian series, Tufnell notes (1984: 131) that animal designs occur already on First Intermediate Period and early Middle Kingdom scarabs (Ward 1978a: Pl. 6). These early examples, displaying insects, lizards, apes, lions, antelopes, and the hippopotamus goddess, continue earlier traditions attested on design amulets of the First Intermediate Period.¹⁰⁰ Of these early motifs, only the antelope, the lion and the hip-

⁹⁵ Tufnell correctly considers the example bearing the name of Senwosret II (Tufnell 1984: Pl. 52: 3048) a 13th Dynasty reissue (Tufnell 1984: 131).

⁹⁶ For the Canaanite origin of this form of *κω* see Ben-Tor 1997: 171.

⁹⁷ See **Pl. 24: 2, 8, 12, 14, Pl. 25: 1**.

⁹⁸ See Ward 1978a: 63 for the pre-New Kingdom name of this goddess.

⁹⁹ Keel presents one example from Azor (1995a: Fig. 463; 1997: 753: 16), which constitutes an Egyptian import (below).

¹⁰⁰ Compare the examples presented in Ward 1978a: Pl. 6 with Wiese 1996: Figs. 9, 21, 23, 29-31, 36-40.

popotamus goddess are attested on late Middle Kingdom examples. Antelopes¹⁰¹ are first attested on First Intermediate Period design amulets frequently arranged tête bêche (Wiese 1996: Pls.23-24). They also occur on early Middle Kingdom scarabs usually with other motifs (Ward 1978a: 70, Fig.70: 18, Pl. 8: 220) and occasionally continuing the First Intermediate Period tradition depicting them tête bêche (Ward 1978a: Pl. 6: 174). Late Middle Kingdom scarabs depicting antelopes are extremely rare, occurring only on isolated known examples. The latter depict the animal either in the form attested on early Middle Kingdom scarabs, as on an oval plaque bearing the prenomen of Amenemhat III on one side and an antelope with the image of the goddess Taweret on the other (Pl. 19: 11), or reclining with its front and hind legs bent inwards under the body (Pl. 19: 12).

The apparent similarity between the images of the hippopotamus goddess at Uronarti (Pl. 19: 7-10), the lion standing on its hind legs at Kahun (Pl. 19: 5), and images depicted on the Middle Kingdom ivory "wands" was already noted by Keel (1989: 282-86; 1993: 211; 1995a: 217, § 592). The figures of protective deities and demons depicted on these apotropaic "wands" frequently include images of the hippopotamus goddess and of a lion standing on its hind legs (Hayes 1953: 249, Fig. 15; Altenmüller 1965: Figs. 11, 13-14, 16-18, 25; Pinch 1994: Figs. 19, 20, 38). Keel presents four additional scarabs bearing the image of the hippopotamus goddess (Pl. 19: 13-16), and attributes them to the late Middle Kingdom (Keel 1989: 282-84). One of the scarabs presented by Keel is a 13th Dynasty private-name scarab from Qau depicting two images of the goddess on its back (Pl. 19: 13). An additional scarab depicting the hippopotamus goddess was found in tomb 124 at Mirgissa (Pl. 19: 17), dated by the pottery between the late 12th and the early 13th Dynasty.¹⁰² The goddess is also depicted on the contemporaneous oval plaque bearing the prenomen of King Amenemhat III, which depicts also an antelope (Pl. 19: 11), and on a late Middle Kingdom heirloom scarab found in MBIIB context at Azor (Pl. 19: 16).¹⁰³

These examples, and three of the four impressions at Uronarti (Pl. 19: 8-10) depict the goddess holding a knife, a distinct attribute of the goddess, which she holds in most of her representations on the ivory "wands". One of the Uronarti examples (Pl. 19: 7) shows her next to a *s3* sign, another distinct symbol of the goddess, usually depicted next to her – her foreleg leaning on it for support. The *s3* is occasionally replaced by *ꜥnh* (Altenmüller 1965: Figs. 13, 14, 17, 25; Andrews 1994: 40). The standing lions depicted on the ivory "wands" are also occasionally depicted leaning on a *s3* sign (Altenmüller 1965: Fig. 13, 14, 17), or holding a knife (Altenmüller 1965: Fig. 17). The standing lion holding a knife is depicted also on a late Middle Kingdom oval plaque, a surface find from Tell Ridan (Pl. 19: 18).¹⁰⁴ The standing lion on the Kahun impression is depicted next to an *ꜥnh* sign (Pl. 19: 5), its foreleg above the sign implying the same leaning position depicted on the ivory "wands".

There is little doubt regarding the same apotropaic function of the images of the hippopotamus goddess and the standing lion on the Middle Kingdom ivory "wands" and scarabs (Keel 1989: 282-86). It has been suggested that many of the images on the ivory "wands" developed from those depicted on First Intermediate Period design amulets (Wiese 1996: 107-164), as is clearly indicated in the case of the hippopotamus goddess (Wiese 1996: 114-15, Fig. 9: 176-77, 181). The alleged foreign origin of the early design amulets is now largely rejected (Ward 1970; Kemp and Merrillees 1980: 49, and n. 108; Wiese 1996: 3-9, 165-67), and they are usually associated with the sphere of popular religion, especially with the protection of women and children (Ward 1970: 79; 1971: 42-3; Keel 1995a: 267, §705; Wiese 1996: 159). A similar apotropaic function is suggested for the ivory "wands" (Altenmüller 1965: 178-79; Hayes 1953: 248-49; Pinch: 1994 40-41, 78; Wiese 1996: 157) and for scarabs bearing similar images (Keel 1989: 282-86; 1993: 211; 1995a: 217, §592).

The *nfr* sign depicted next to the hippopotamus goddess on three of the Uronarti impressions (Pl. 19: 8-10) and on the Azor scarab (Pl. 19: 16) is not found in other representations of the goddess, including those on the early design amulets and ivory "wands". Its occurrence on late Middle Kingdom scarabs probably reflects the common inclusion of this good-luck sign in most late Middle Kingdom scarab designs.

The recumbent lion depicted on the other Kahun example (Pl. 19: 6) is so far unique, and is notably different in style from the lions depicted on scarabs in the Palestinian series (Tufnell 1984: Pl. 40).¹⁰⁵ The occurrence of recumbent lions on early scarabs and design amulets (Ward 1978a: Pl. 6: 172-73; Wiese 1996: Fig. 21: 422), and on the Middle Kingdom ivory "wands" (Pinch 1994: 40, Figs. 19, 20) implies the same apotropaic function for the Kahun lion. The *ꜥnh* sign depicted above the lion further supports this association.

¹⁰¹ For a more accurate definition of the horned animals see Keel 1990a: 263-79.

¹⁰² I thank Christa Mlinar for informing me that the pottery found in this tomb is identical to the Egyptian pottery found in Tell el-Dab'a stratum d/2=H. The scarab's features are of distinct 13th Dynasty type (below, § IB 4).

¹⁰³ See Keel 1997: 753, no. 16. The late Middle Kingdom origin of this scarab is indicated by its design and features (below, § IB 4-5).

¹⁰⁴ Keel 1993a: 210, Fig. 7. The plaque is most probably an Egyptian late Middle Kingdom import considering the lack of evidence for Canaanite imitations of this motif (below §IIIA 9, §IVA 9d-e).

¹⁰⁵ The Canaanite origin of the Palestinian examples is discussed below (§IVA 9E).

The evidence presented above indicates that two of the three late Middle Kingdom images categorized here under design class 9 (the hippopotamus goddess and the recumbent lion) continue a First Intermediate Period tradition of depicting apotropaic images on design amulets. Moreover, all three images are depicted on a different type of contemporaneous amulet – the ivory "wands". The relative scarcity of these images on late Middle Kingdom scarabs may be attributed to the fact that they were not originally associated with scarabs, unlike the more popular late Middle Kingdom scarab designs. It may also be explained by the preference of the ivory "wands" over scarabs during this period for the particular protection attributed to these images.

§IA 10. Design class 10 – Human and mythical figures

As in the case of design class 9, design class 10 is abundantly attested in many variations in the Palestinian series (Tufnell 1984: Pls. 42-48), while it occurs only on a handful of late Middle Kingdom design scarabs displaying images that differ from those occurring in Palestine. In her study of the Kahun and Uronarti impressions, Tufnell presents seven examples of design class 10, depicting exclusively images of deities. Five of the seven examples depict the most distinctive symbol of the goddess Hathor – a human face with cow's ears and horns, the latter often ending with spirals (Pl. 19: 19-23). Four additional examples displaying this symbol are found in the late Middle Kingdom series: one at Uronarti (Pl. 19: 24), one at Mirgissa fort (Pl. 19: 25), one at Elephantine (Pl. 19: 26), and one at el-Lisht (Pl. 19: 27). Another securely dated late Middle Kingdom example is the scarab from tomb 124 at Mirgissa depicting the image of the hippopotamus goddess (above, design class 9), which is decorated with two Hathor symbols on the back (Pl. 19: 28). The Hathor symbol is frequently depicted in Egyptian art with a particular type of ceremonial sistrum associated with the cult of the goddess, which is represented as a shrine above the human face. Five of the six examples at Kahun and Uronarti (Pl. 19: 19-21, 23-24), as well as the Elephantine impression (Pl. 19: 26) depict the shrine above the face of the goddess.

The Hathor symbol has a long history on Egyptian design amulets. It is found on First Intermediate Period design amulets alone (Wiese 1996: Fig. 1) or with other motifs (Wiese 1996: Figs. 7, 13: 137-40, 264), and on First Intermediate Period and early Middle Kingdom scarabs (Ward 1978a: Pl. 11: 284-89). The association of this symbol with the goddess Hathor on pre-Middle Kingdom examples, is supported, although with some doubt,¹⁰⁶ by both Ward and Wiese (Ward 1978a: 63; Wiese 1996: 107-111). The representation of the symbol on the First Intermediate Period seal amulets¹⁰⁷ is notably schematic, gradually becoming less schematic on early Middle Kingdom and late Middle Kingdom scarabs. It is important to note that the motifs associated with the Hathor symbol on First Intermediate Period design amulets are also found with other motifs on contemporaneous examples (Wiese 1996: Pls. 7, 13: 141-49, 262-63), but they are not attested on scarabs. Both early and late Middle Kingdom scarabs, when combining the symbol with other motifs, display typical motifs of the period: the *nbtj* motif on early Middle Kingdom scarabs,¹⁰⁸ and *nfr* signs (Pl. 19: 19-20, 25-27), spirals (Pl. 19: 21), and symmetric patterns (Pl. 19: 23-27), on late Middle Kingdom examples. One of the Uronarti examples (Pl. 19: 22) displaying a variation of the *nbtj* motif and papyrus plants shows early Middle Kingdom inspiration (Ward 1978a: Pl. 11: 284-86).

Apart from the Hathor symbol, two additional human-form deities are attested at Uronarti. One of them, Heh (Pl. 19: 29), is a personification of "infinity" and the related concept "millions". He is always represented as a kneeling man, holding a palm rib (year) in each hand – the image symbolizing "millions of years", the ultimate wish for eternal existence in the afterlife (Hornung and Staehelin 1976: 96). Like the Hathor symbol, the image of Heh is attested, though less frequently, on First Intermediate Period design amulets (Wiese 1996: 115-16, Figs. 9: 184-86), one example depicting him together with the Hathor symbol (Wiese 1996: Fig. 13: 264). No early Middle Kingdom scarab bearing the image of Heh has been published,¹⁰⁹ but he is depicted together with other motifs on an early Middle Kingdom design amulet (Wiese 1996: Fig. 51: 1046). The Uronarti example depicting Heh is so far unique in the late Middle Kingdom series, but the image is found on a lapis lazuli royal-name scarab of Amenemhat III from the jewelry treasure of Princess Sit-Hathor Yunet at el-Lahun (Pl. 20: 18). The Uronarti impression includes a typical late Middle Kingdom symmetric arrangement of hieroglyphs above the image: a *w3d* flanked by two *nfr* signs. Amulets depicting the image of Heh were found in tombs dating from the late Old Kingdom through the Middle Kingdom (Andrews 1994: 88-9), corroborating the significance of this image in the funerary cult during the period, which it is attested on design amulets and scarabs.

¹⁰⁶ The human head with bovine ears and horns was originally the symbol of the goddess Bat, whose iconography was absorbed into the cult of Hathor by the Middle Kingdom (Fischer 1962).

¹⁰⁷ As well as the First Intermediate Period scarab presented by Ward (1978a: Pl. 11: 288).

¹⁰⁸ Ward 1978a: Pl. 11: 284-85.

¹⁰⁹ A scarab in the Ashmolean Museum at Oxford depicting the image of Heh (EA 1892.232) displays features that strongly suggest an early Middle Kingdom date – head type C, back type III, side type c3 (Ward 1978a: 25-33). I thank Othmar Keel for providing me with copies of the pictures of this scarab (See Keel 1995a: 213, § 580).

The other human-form deity at Uronarti (**Pl. 19: 30**) frequently represents Hapi – the personification of the rich floodwaters of the Nile, whose form and attributes symbolize abundance. He is depicted as a man with a protruding belly and pendulous breasts, often wearing a clump of papyrus as headdress. Images of this type, which are often depicted in pairs or in groups, are not exclusively representations of Hapi, and were therefore recently termed "fecundity figures" (Baines 1985: 112-16).

Representations of these figures are not known to occur on design amulets or scarabs before the late Middle Kingdom. Apart from the Uronarti example depicting one figure, four such figures are depicted on another securely dated late Middle Kingdom scarab from the late 12th Dynasty treasure of princess Sit Hathor at Dahshur (**Pl. 19: 31**). Two additional late Middle Kingdom examples, each depicting two figures, are a scarab in the Basel collection (**Pl. 19: 32**), and a scarab from the north pyramid cemetery at el-Lisht (**Pl. 19: 33**). A unique scarab in the Israel Museum (**Pl. 19: 34**) depicts only one figure. The last three scarabs display distinctive 13th Dynasty features (below, §IB 2-4).

The five late Middle Kingdom examples depict the fecundity figures in the most typical iconographic contexts associated with them in Egyptian art – bearing offerings, and flanking the sign of union (Hornung and Staehelin 1976: 97-98; Baines 1985: 85-110, 208-272). As offering bearers they are depicted striding, reclining, or kneeling, offering the abundance of the land that is usually represented by the sign *hṯp* (offerings), and is often surmounted by a libation vase (*hs*) (Baines 1985: Figs. 43-44, 53, 55, 57a-b). The sign of dominion (*w3s*) is frequently depicted as part of the offering (Baines 1985: Figs. 43-44, 53, 55, 57a-b), and signs of life (*ꜥnh*) are usually depicted hanging from the figures' arms (Baines 1985: Figs. 43-44, 53, 55, 57a-b). The figures are also commonly depicted reclining or kneeling, holding a *hs* vase (Baines 1985: Figs. 60; Hornung and Staehelin 1976: 97). In association with the union of the two lands the figures are represented in pairs, flanking and holding the sign of union (*sm3 t3wy*) (Baines 1985: Figs. 47, 49, 51, 52). or pulling a cord or a plant stem that is tied around it (Baines 1985: Figs. 76, 132-34).

Four of the late Middle Kingdom scarabs depict the figures in the context of bearing offerings. The Uronarti impression depicts one figure, kneeling on the typical standard of divine symbols, holding a *hs* vase with an *ꜥnh* sign depicted diagonally above it, perhaps symbolizing the life-giving offering in the vase (**Pl. 19: 30**). The Basel scarab depicts a pair of figures bearing a *hṯp* sign, *ꜥnh* signs hanging from their arms, flanking a *w3s* (**Pl. 19: 32**). The scene is depicted in the upper field of the scarab's plinth, which is divided by a double line. The lower field is significantly smaller and displays a symmetric arrangement of hieroglyphs: *k3* flanked by two *ꜥnh* signs. The scarab from el-Lisht depicts a pair of figures bearing an *ꜥnh* sign, a *w3d* sign depicted below their hands. Two linked spirals, each flanking a *nfr* sign, are depicted above and below the scene (**Pl. 19: 33**). The scarab from the Israel Museum depicts the figure as part of a pattern constituting a combination of design classes 2 and 3. It is depicted at the center of the base, flanked by hieroglyphs: *dd* and *nfr rꜥ* on its left, and *w3d* and *ꜥnh* on its right, enclosed in a pattern of interlocking spirals. The figure is depicted kneeling, presenting a tray of offerings,¹¹⁰ with two *ꜥnh* signs hanging from his hands (**Pl. 19: 34**).¹¹¹

The scarab from the jewelry treasure of the princess at Dahshur depicts the images in the context of the unification of the two lands. A double line divides the scarab's plinth at the center, both fields displaying an identical scene depicting a pair of fecundity figures pulling a cord around the sign of union. The figures on this scarab are crowned with papyrus clumps (**Pl. 19: 31**). It is interesting to note that only the Dahshur scarab, which was found in a royal-associated context, depicts these figures in the context of the union of the two lands, while the other four scarabs depict them in the context of bearing offerings. This distribution is not surprising considering the fact that the sign of union is a distinct attribute of kingship, and thus fecundity figures are represented with it in royal-associated contexts, mainly on the sides of thrones or with the king's image and/or names (Baines 1985: 137-38, 226-44). Their representation on scarabs in the context of bearing offerings is most probably associated with eternal supply of provisions in the afterlife (Hornung and Staehelin 1976: 97-98).

The limited corpus of human figures constituting design class 10 on late Middle Kingdom design scarabs is slightly extended by human figures depicted on private-name scarabs. A unique example in the Israel Museum collection depicts the human-form figure of the god Ptah next to the name and title of the scarab's owner, whose name "Son of Ptah" most probably accounts for the god's image on the scarab (**Pl. 19: 35**). Male and female human figures are depicted next to the names and titles of private individuals on a particular type of late Middle Kingdom private-name scarab (**Pl. 19: 36-42, Pl. 20: 1-5**). These figures constitute idealized images of the scarabs' owners, as is indicated by the fact that male and female figures are always depicted respectively next to male and female names and titles. Some examples show the figures smelling a lotus flower and/or holding an *ꜥnh* (**Pl. 19: 41, Pl. 20:**

¹¹⁰ The small size of the figure does not allow an accurate description of the offerings, which may include a *hs* vase.

¹¹¹ I thank Orly Goldwasser for identifying this figure as a fecundity figure, and James Allen for corroborating this identification and for identifying the *ꜥnh* signs hanging from his hands.

2-3, 5), which as argued elsewhere (Ben-Tor 1997: 181, n. 74; Ben-Tor et al. 1999: 54), indicate their depiction as deceased (See also Keel 1995b: 122-23). These figures are not known to occur on late Middle Kingdom design scarabs, but they probably constitute the prototype for human images depicted on Canaanite scarabs (below, §IIIA 10a, §IVA 10a).

A unique example in the Israel Museum collection depicts the figure of a princess next to her name and title (**Pl. 20: 6**). The idealized image of the princess is so far unique on scarabs of members of the royal family in the late Middle Kingdom. It is however identical in type to the female figures on late Middle Kingdom private-name scarabs, except for the uraeus on her forehead. The name, title, and image of the princess are enclosed in an 8A-type rope border, and the scarab's features, as well as the princess's name strongly argue for a 13th Dynasty date.

One late Middle Kingdom private-name scarab of the group noted above depicts a male figure in the act of harpooning a hippopotamus (**Pl. 19: 38**). As in the case of the other human figures depicted on late Middle Kingdom private-name scarabs, there is little doubt regarding the human figure on this scarab being an idealized image of the scarab's owner (Keel 1996: 123-25). The ritual harpooning of the hippopotamus, originally associated with the king as victor over the forces of chaos, was by the late Middle Kingdom also associated with private individuals (Lacovara 1992: 21-22; Keel 1996: 123-25).¹¹² This particular scene is attested on a number of Egyptian design scarabs and design amulets depicting the king or a private individual (Keel 1993b: Figs. 1c, 3-4; 1996: Figs. 17a, 37a). Three of them display features that argue for a late Middle Kingdom date (below), two depicting the king (**Pl. 20: 7-8**), and one depicting a private individual (**Pl. 20: 9**).¹¹³ An oval plaque from Kerma also depicting a private individual (**Pl. 20: 10**), was dated by Markowitz (1997: 85) to the Second Intermediate Period based on its archaeological context. However, the occurrence of this type of oval plaque in the late Middle Kingdom (below, §IB 1), and the possible reading of the signs on the other side of the plaque as the Horus name of Amenemhat IV (Markowitz 1997: Fig. 3.9), argue that a late Middle Kingdom date for this item should not be ruled out.

Another scene showing a human figure, most probably the king is depicted on a fragmentary impression from Kahun (**P. 20: 11**). The sealing is broken, and only part of the scene survived showing the figure standing next to a large lotus flower holding it with one hand, the other hand stretched backwards in the opposite direction and holds an unclear object. The long central tab between the figure's legs suggests he is wearing the royal *shendyt* kilt. The object held in his outstretched hand is probably a weapon, as indicate two scarabs depicting an almost identical scene; an unprovenanced scarab now in the Egyptian museum at Turin (**Pl. 20: 12**), and a scarab found in a late context at Carthage (**Pl. 20: 13**). Both these scarabs show a figure in the same striding posture, a long central tab between the legs indicating the royal *shendyt* kilt, holding a large lotus flower with one hand, and a mace in the other, outstretched hand. Keel correctly identifies the figure on both scarabs as the king based on a parallel scene in Egyptian monumental art (Keel 1995a: 222, § 603). The reversed picture of the scene on the Kahun sealing, showing the figure on the right part of the scene indicates the picture on the scarab was identical to the two parallels. The fragmentary state of the sealing does not allow reconstructing the other part of the scene, whether it depicts an animal like the Carthage scarab, lotus and papyrus flowers like the Turin scarab, or an unknown variation.

Summing up the evidence for design class 10 in the late Middle Kingdom series, two of the images categorized under this design: the Hathor symbol and the image of Heh, continue an old tradition of popular religion attested on First Intermediate Period design amulets. The depiction of fecundity figures, the god Ptah, the king, princess, and private individuals on scarabs, is however a novelty of the late Middle Kingdom. As in the case of the images categorized here under design class 9, those categorized under design class 10 belong exclusively in the Egyptian religious sphere. Their specific religious contexts most probably account for their almost complete absence in the Palestinian series, and for the fact that most of them are not attested on Canaanite scarabs. The exceptions that are found on Canaanite scarabs, such as the Hathor symbol, the god Ptah, and figures of private individuals, were assimilated into the Canaanite cultural sphere (below, §IIIA 10d2, §IVA 10a, §IVA 10d2).

¹¹² The assuming of royal privileges by high officials in the late Middle Kingdom is well attested in the so-called "democratization" of royal-associated funerary cults (see also Keel 1996: 124).

¹¹³ The last example displays branches as part of the background scenery, a highly unusual motif on Middle Kingdom scarabs. Moreover, similar branches constitute a distinctive Levantine motif, and are customarily depicted on Middle Bronze Canaanite scarabs and occasionally on Egyptian Second Intermediate Period scarabs (below, §IIIA 1a, §IVA 1a). The iconographic context of the branches on this scarab as a Nilotic scenery, together with a lotus flower, differs from the iconographic contexts attested on Canaanite and Second Intermediate Period Egyptian scarabs.

§IB. Typology of Features

Establishing a feature typology for late Middle Kingdom scarabs is problematic due to the scarcity of securely dated examples. As already noted above, the late Middle Kingdom excavated series constitute mainly seal impressions, and a much smaller corpus of scarabs, of which the largest group came from debris in the north pyramid cemetery at el-Lisht. The difficulty to describe the features of late Middle Kingdom scarabs is reflected in recent studies of scarab typology, namely those of Tufnell and Ward (Tufnell 1984; Ward 1987; Ward and Dever 1994) and O'Connor (1985), which are the only ones established on excavated series. The chronological typologies proposed in these studies are based on the comparison of designs and stylistic features of excavated design scarabs with those of royal-name scarabs assumed to be securely dated. The controversial conclusions of these studies result from the different choice of source material – both the excavated design scarabs and the royal-name scarabs. O'Connor's typology is based mainly on excavated scarabs from Egypt (1985: 14-20), while Tufnell and Ward use mainly excavated material from Canaanite sites (Tufnell 1984: 3-26, 53-114; Ward 1987: 516-23; Ward and Dever 1994: 25-114). The royal-name scarabs considered by Tufnell and Ward include examples bearing names of early 12th Dynasty kings (Tufnell 1984: 151-54, Figs. 51-2; Ward and Dever 1994: 102-106, 125-28). These scarabs are however not considered contemporaneous by O'Connor, who begins the royal-name series with the late 12th Dynasty examples from the princesses' treasures at Dahshur and el-Lahun (O'Connor 1985: 7, 12).

Although neither typology separates the Canaanite scarabs from the Egyptian ones, O'Connor's choice of source material accounts for his more accurate feature typology for late Middle Kingdom scarabs. It is argued elsewhere that none of the royal-name scarabs bearing names of early 12th Dynasty kings originated in contemporaneous archaeological contexts (Ben-Tor 2004b: 21-23). It is further argued there that the royal-name scarabs from the treasures of the late 12th Dynasty royal women at Dahshur and el-Lahun reflect the initial production of royal-name scarabs. Moreover, it is argued here that particular characteristics of most scarabs presented by Ward as 12th Dynasty examples indicate their posthumous production, and the Canaanite production of some. Ward points out the difficulty to distinguish contemporaneous 12th Dynasty scarabs from re-issues (in Tufnell 1984: 152-53), and his selection is based primarily on designs and features found on design scarabs in the early Palestinian series dated by him to the 12th Dynasty (Tufnell 1984: 152-53; Ward and Dever 1994: 128).

It is important to note that during all periods of scarab production in Egypt, design and royal-name scarabs of the same period show distinct similarity in their designs and features. This is clearly attested in the case of Second Intermediate Period royal-name scarabs (below, §IIB 1), New Kingdom and later scarabs,¹¹⁴ and in the case of 13th Dynasty royal-name scarabs termed "the Sobkhotep group" by Ward (below).¹¹⁵ When discussing 12th Dynasty royal-name scarabs, Ward states (Ward and Dever 1994: 128) that the artisans who produced them "used the obvious as their typological model, the design scarabs with which they had by then long been accustomed. This accounts for the similarities between 12th Dynasty royal-name scarabs and the contemporary design scarabs of Periods IIA and III". He further shows these similarities to corroborate the 12th Dynasty date of these royal-name scarabs, ignoring however the fact that design scarabs of periods IIA and III originated exclusively in the early Palestinian series (Ward and Dever 1994: 5-6). Moreover, Ward was not aware of the fact that these scarabs constitute almost exclusively Canaanite productions that are significantly later than the early 12th Dynasty (below, introduction to chapter III).

§IB 1. Royal-Name Scarabs of the 12th Dynasty

An examination of the early 12th Dynasty royal-name scarabs presented by Ward (Tufnell 1984: Pls. 51-52) shows that none of them displays designs and features attested in the early Middle Kingdom series. Moreover, many of them display typical late Middle Kingdom designs, such as different types of scroll borders (Tufnell 1984: Pls. 51-2: 3016-29, 3032, 3047, 3062-64), rope borders (nos. 3030, 3048, 3066-71), and symmetric patterns of design 3B (nos. 3006-08, 3010-13, 3036-40). Others display borders comprising concentric circles (nos. 3014-15, 3043-45), which are not attested before the Second Intermediate Period.¹¹⁶ Some of these scarabs display distinct Canaanite

¹¹⁴ See for example the royal-name and design scarabs from the foundation deposits of Queen Hatshepsut at Deir el-Bahri (Hayes 1959: 87, Fig. 48), and Jaeger's discussion (1982: 254-69) on dating criteria of royal-name scarabs from the New Kingdom to the Late Period. See also O'Connor 1985: 16.

¹¹⁵ In contrast to Ward's statement that this group reflects a break in the stylistic development (in Tufnell 1984: 159; Ward and Dever 1994: 129). See below.

¹¹⁶ See Tufnell 1984: Pl. 67: 3263. This type of border is frequently found on New Kingdom re-issues of 12th Dynasty royal-name scarabs (Ward 1971: 135, Fig. 29).

characteristics, such as branches decorating the back (nos. 3021, 3045),¹¹⁷ a particular form of the sign *k3* (nos. 3011, 3019, 3021, 3025, 3061, 3067-68, 3070),¹¹⁸ and a winged sun disk (no. 3037).¹¹⁹ One example (no. 3028) depicts the name of the god Ptah above the cartouche, which is characteristic of a particular group of Canaanite scarabs (below, §IIIA 3b8, §IVA 3b8). The scarab presented in no. 3038 is not a royal-name scarab since the sign *h^c* is displayed twice, flanking the sun disk. This scarab, as well as other examples depicting the "royal name" flanked by symmetrically displayed signs (nos. 3036, 3039-40, 3057) belong to a particular type of late Middle Kingdom design scarabs bearing design class 3B (Ward 1977).¹²⁰

The only scarab among those presented in Tufnell 1984, Pls. 51-52 which can be attributed to the reign of the king whose name it bears is the scarab bearing the prenomen of Senwosret III from the treasure of princess Sit Hathor at Dahshur (**Pl. 20: 14**). An additional contemporaneous example from Dahshur is now at the Metropolitan Museum of Art (**Pl. 20: 15**). The other examples bearing the name of Senwosret III are problematic and cannot be dated on secure grounds. As already noted above, some display the typical Canaanite form of *k3*, and some display schematic features (nos. 3062-64, 3069), which are not known to occur on Middle Kingdom scarabs (O'Connor 1985: 9-12).¹²¹ The available evidence suggests that the initial production of royal-name scarabs in Egypt did not precede the reign of Senwosret III (Ben-Tor 2004b). The two royal-name scarabs bearing the names of Amenemhat II found among the jewelry of Queen Weret II at Dahshur (**Pl. 20: 16-17**) display designs and features that argue against dating them earlier than the reign of Senwosret III in whose pyramid complex they were buried (Ben-Tor 2004b).

Securely dated examples bearing the throne name of Amenemhat III were found among the jewelry treasures of the princesses at el-Lahun and Dahshur. One was found in the treasure of princess Sit-Hathor Yunet at el-Lahun (**Pl. 20: 18**), and two were found in the treasure of princess Mereret at Dahshur (**Pl. 20: 19-20**). Other examples bearing the name of Amenemhat III may be contemporaneous, although none originated in a securely dated context. Of the five examples from Kahun (Tufnell 1975: Fig. 12: 438-442), two display distinct late Middle Kingdom designs: a continuous oblong scroll border (**Pl. 20: 21**) and a symmetric pattern comprising design class 3B (**Pl. 20: 22**). Some of the examples presented by Ward (**Pl. 20: 23-28**) also display typical late Middle Kingdom designs. As the latter most probably first occur in the late 12th Dynasty (above, introduction to chapter I), these scarabs may be considered, though with caution, as possible contemporaneous examples. Another very likely contemporaneous example is an unprovenanced oval plaque bearing the prenomen of this king enclosed in a cartouche and surrounded by four winged sun disks (**Pl. 20: 29**). The late Middle Kingdom date of this plaque is indicated by the type of the winged sun disks surrounding the cartouche (Ben-Tor 2004c: 34-35, Fig. 4: 10), and by the image of Taweret and antelope depicted on the other side (above, §IA 10).

The particular characteristics of a securely dated example from Dahshur (**Pl. 20: 20**) – its small size and the fact that it displays the prenomen of the king with no other motif – may indicate the contemporaneity of similar examples (**Pl. 20: 30-33**). One possible contemporaneous example of this type comes from tomb 426 in cemetery Y at Hu (**Pl. 20: 34**), which is dated by Bourriau (personal communication) to the late 12th - early 13th Dynasty, based on the pottery and stone vessels it contained.¹²² Other examples that may be attributed to the late Middle Kingdom, though not necessarily to the late 12th Dynasty, include a scarab from tomb 170 in cemetery U at Ukma West (**Pl. 20: 35**),¹²³ and three examples from the settlement debris at el-Lisht (**Pl. 20: 36-38**). The crude form of the sign *n* on some of these scarabs is also attested on 13th Dynasty royal-name scarabs (Martin 1971: Pl. 42A: 8-17) and therefore does not necessarily indicate a post Middle Kingdom date as argued by Villa (1987: 235). The above

¹¹⁷ For the Canaanite origin of the branches on scarabs see below (§IIIA 1E). Branches decorating the back are also found on Second Intermediate Period Egyptian scarabs (below, §IIB 1) attesting to the adaptation of this motif on Egyptian scarabs of this period. These examples may therefore indicate a Second Intermediate Period date.

¹¹⁸ See Ben-Tor 1997: 171.

¹¹⁹ This form of sun disk is not attested on Middle Kingdom scarabs, but is commonly depicted on Middle Bronze Canaanite scarabs (Ben-Tor 2004c: 34-5, Fig. 4). The Canaanite origin of this scarab is confirmed by its features (below, §IIIB 1). The scarab depicting a winged sundisk in Tufnell 1984: Pl. 52: 3035 is probably not earlier than the New Kingdom considering the type of hedgehog back (compare Andrews 1994: 64, and Fig. 54 with examples presented by Keel 1995a: Figs. 97-101). The features of the scarab presented in Tufnell 1984: Pl. 52: 3059, particularly the type of lunar head, also suggest a New Kingdom or later date.

¹²⁰ For the particular type presented in Tufnell 1984: Pl. 52: 3057 see Ryholt 1997: 62-3, and Ben-Tor et al 1999: 63.

¹²¹ The schematic features attributed by Ward to Middle Kingdom scarabs are in fact those of Canaanite scarabs of the early Palestinian series (below, §IB 1-2).

¹²² An additional example from cemetery Y at Hu (Petrie 1901: Pl. 41: 10) comes from tomb 424, for which Bourriau suggests an early Second Intermediate Period date (personal communication). I am extremely grateful to Janine Bourriau for her generous help with the material from the cemeteries at Qau, Mostagedda, Matmar, and Hu.

¹²³ Cemetery U at Ukma West yielded exclusively late Middle Kingdom scarabs (below, §IIB 4c1).

noted examples indicate that this type of small royal-name scarabs was produced in the late Middle Kingdom, though most examples cannot be securely dated to the reign of Amenemhat III.

Most of the late 12th Dynasty royal-name scarabs from the treasures of the royal women at el-Lahun and Dahshur are made of semi-precious stones, and their features are therefore not necessarily indicative of features of steatite scarabs (Ward and Dever 1994: 14). The comparative material of design scarabs used by O'Connor for the late 12th Dynasty is extremely problematic, as correctly noted by Ward (Ward and Dever 1994: 14-16; Ben-Tor 1997: 165-66). It was already argued above that no published site in Egypt allows for the distinction between late 12th and 13th Dynasty scarabs. Kemp and Merrillees (1980: 39-42) discuss the difficulties associated with dating royal-name cylinder seals bearing names of 12th Dynasty kings, which sometimes bear more than one royal name. These authors note the posthumous cults of 12th Dynasty kings, which are attested throughout the Middle Kingdom,¹²⁴ and argue that these objects are therefore not necessarily contemporaneous (Kemp and Merrillees 1980: 41). The same conclusion applies to royal-name scarabs bearing names of 12th Dynasty kings, which like the cylinder seals occasionally bear more than one name (Tufnell 1984: Pl. 53: 3091-92). Posthumous production of royal-name scarab bearing names of early 12th Dynasty kings is attested in particular cases presented by Ward (1971: 135, Fig. 29).¹²⁵ It is, however, also indicated in examples considered by him as contemporaneous, as all display characteristics that are not known to occur on early Middle Kingdom scarabs (above).

Royal-name scarabs of the last two rulers of the 12th Dynasty are extremely rare (Hornung and Staehelin 1976: 50; Tufnell 1984: Pl. 53: 3091-92, 3094-95). The few published examples were not found in excavations and it is therefore difficult to determine their precise date. One of the two large scarabs bearing the names of Amenemhat III and Amenemhat IV together (Pl. 20: 39-40) displays 13th Dynasty features (Tufnell 1984: Pl. 53: 3092) and these scarabs may therefore be posthumous. The two scarabs bearing the names of Amenemhat IV and Sobknefru (Pl. 20: 41-42) display features that argue for a likely late Middle Kingdom date (Tufnell 1984: Pl. 53: 3094-95; below), and scroll borders depicting the paired scrolls as two confronted serpents, which support a possible late 12th Dynasty date (above, design class 7C3(ii)). These two scarabs are most probably contemporaneous royal-name scarabs, or 13th Dynasty products at the latest.¹²⁶

§IB 2. Royal-Name Scarabs of the 13th Dynasty

Unlike royal-name scarabs bearing names of 12th Dynasty kings, those bearing names of 13th Dynasty kings are in most cases contemporaneous.¹²⁷ Securely dated royal-name scarabs of the 13th Dynasty are however attested almost exclusively for a group of seven kings in the middle of the dynasty, termed "the Sobkhotep group" by Ward (Tufnell 1984: 156-159; Ryholt 1997: 34-7).¹²⁸ Both Ward (in Tufnell 1984: 159-61) and Ryholt (1997: 43, ns. 87, 89) note the difficulties associated with attributing royal-name scarabs to early and late 13th Dynasty kings. However, the royal-name scarabs of the Sobkhotep group¹²⁹ are securely dated to these kings,¹³⁰ whose mid 13th Dynasty date is confirmed by their position in the Turin king-list.¹³¹

The royal-name scarabs of the Sobkhotep group presented by Ward (Tufnell 1984: Pls. 54-56), show a great majority of lined backs, most of them categorized under Ward and Dever's "Lined naturalistic" (1994: 165), and O'Connor's "type 6" (1985: 5). Only a few examples show Ward and Dever's "Plain naturalistic" = O'Connor's type 7 (Tufnell 1984: Pls. 54-5: 3102, 3152, 3188). O'Connor states that his back type 6 is "virtually restricted to Dynasty XIII, which it numerically dominates" (1985: 9).¹³² Ward defines the Sobkhotep group as "characterized by larger sizes, square heads (type C), a near universal use of lined backs, sides d8 and d9, and an almost complete

¹²⁴ And in some cases much later.

¹²⁵ See also Tufnell 1984: Pl. 64: 3515-19, where 12th Dynasty royal names are depicted on typical late Second Intermediate Period and early 18th Dynasty seal amulets.

¹²⁶ The scarab from Tell el-`Ajjul presented by Ward as a royal-name scarab of Amenemhat IV (Tufnell 1984: Pl. 53: 3093) is not a royal-name scarab, but a late Middle Kingdom design scarab. The square head argues for a 13th Dynasty date (below).

¹²⁷ Posthumous examples (of the New Kingdom) are attested only for *ḥꜥ-nfr-rꜥ* Sobkhotep IV (Hornung and Staehelin 1976: 50, and nos. 121-24).

¹²⁸ Ward presents royal-name scarabs for only six of these kings (in Tufnell 1984: 158), and does not include those of *mr-ḥtp-rꜥ* Sobkhotep, whom Ryholt places as Sobkhotep V (1997: 73).

¹²⁹ The complete list of these scarabs can be found in the catalogue of attestations presented by Ryholt (1997: 343-56).

¹³⁰ Examples are found in the late Middle Kingdom series (e.g. Petrie and Quibell 1896: Pl. 80: 19; Dunham 1967: Fig. 10: 32.1.120; Tufnell 1975: Fig. 12: 444).

¹³¹ Except for *mr-ḥtp-rꜥ* Sobkhotep, whom Ryholt places as Sobkhotep V (1997: 34). As correctly argued by Ryholt, including this king in the "Sobkhotep group" is secure considering the distinct genealogical type of his royal-name scarabs (Ryholt 1997: 35, Fig. 1: h-i).

¹³² O'Connor's back typology follows the one established by Martin, who also states that back type 6 is attested on a large number of royal-name scarabs that clearly date it to the 13th Dynasty (Martin 1971: 5).

absence of ancillary designs on the base". These distinct characteristics, though not exclusive in this group,¹³³ describe the majority of examples (**Pl. 21: 1-18, Pl. 22: 1-4**).

Ward compared the features of this group with those of design scarabs in his groups III and IV of the Palestinian series (Ward and Dever 1994: 121) and noted a distinct stylistic difference between the royal-name scarabs and his comparative material. He consequently concluded that the royal-name scarabs of the Sobkhotep group show an abrupt break in the stylistic development of royal-name scarabs, while no such distinction is discernable in contemporary design scarabs, which continue in an unbroken and gradual stylistic development (in Tufnell 1984: 159; Ward and Dever 1994: 129). Unlike the comparative material presented by Ward, O'Connor's comparative material from the early phases of cemetery K at Buhen show a proportionately substantial representation of back type 6 (1985: 15, 18; Fig 5). O'Connor's comparative material, as well as the large number of late Middle Kingdom private-name scarabs¹³⁴ and design scarabs displaying the same features as those of the "Sobkhotep group" scarabs (below), clearly argue against Ward's suggested break. Moreover, it is argued here that the discrepancy between the stylistic features of the Sobkhotep group scarabs and the Palestinian comparative material presented by Ward should be attributed to the later date and Canaanite production of the latter (below, introduction to chapters III and IV).

The sequence of the Sobkhotep group scarabs is secure as it is based on the position of the kings in the Turin king-list. Ward divides the group into two main types based on their average lengths, designs and features (in Tufnell 1984: 158), while Ryholt divides them into three main types, based on their designs (1997: 34-37). Both present tables displaying the distribution of particular characteristics, which indicate gradual changes in design (Ryholt 1997: 37, table 9), size and side types (Tufnell 1984: 158). The stylistic division of the Sobkhotep group scarabs is quite clear. The scarabs of Sobkhotep III, Neferhotep I, and Sobkhotep IV, of the genealogical type (Tufnell 1984: Pls. 54-55; Ryholt 1997: 35, Fig. 1)¹³⁵ display an average length of 22-23 cm. and usually display d-type sides (**Pl. 21: 1-4, 6-8, 12, 14-16, 18, Pl. 22: 1-2**). The scarabs of Sobkhotep V(?),¹³⁶ Ibiaw, and Ay, of the *ntr nfr* and Nomen & Prenomen types (Tufnell 1984: Pls. 55-56; Ryholt 1997: 35-6, Figs. 2-3) display an average size of 18-20 cm., and usually display e-type sides (**Pl. 21: 9-10, 13, 17**). The most common head types in both groups are C and D.¹³⁷ One of the two large scarabs bearing the names of Amenemhat III and Amenemhat IV (Tufnell 1984: Pl. 53: 3092) displays Martin's and O'Connor's back type 6 and a C-type head, which suggests a 13th Dynasty date.¹³⁸

Both Ward and Ryholt note a group of scarabs bearing names of queens, which display the same features as the Sobkhotep group scarabs (Tufnell 1984: 158-59, Pl. 64: 3529-30, 3534-36; Ryholt 1997: 38-40 = **Pl. 22: 5-11**). The affiliation of these queens with the Sobkhotep group kings is largely accepted based on the distinct characteristic features of their scarabs, though none of them is securely associated with a particular king.

§IB 3. Private-Name Scarabs with Features of the Sobkhotep Group Scarabs

The large number of private-name scarabs displaying characteristic features of the Sobkhotep group scarabs was already noted by Martin, who states that out of the 1838 private-name scarabs in his corpus, 880 display back type 6, and 54 examples display back type 7 (1971: 5). Examinations of available material from excavations and from unprovenanced collections support Martin's observation. The only available late Middle Kingdom excavated group of significant quantity comes from the north pyramid cemetery at el-Lisht.¹³⁹ This group includes seven royal-name scarabs of the Sobkhotep group (**Pl. 21: 13-18, Pl. 22: 1**), two scarabs of queens associated with them (**Fig. 22: 7-8**), one scarab of a princess (**Pl. 22: 9**), and more than twenty private-name scarabs displaying the typical features of the group (**Pl. 22: 13-15, Pl. 23: 1-18**). Most of the latter do not bear any decorative designs; two, however, display a three-paired scroll border with oblong scrolls (**Pl. 23: 2, 12**), one displays a continuous scroll border with round scrolls (**Pl. 22: 13**) and two display an 8A-type rope border (**Pl. 22: 14, Pl. 23: 3**). The back of the latter example is decorated with spirals, a type of decoration that is found on Martin's back type 6 (Martin 1971: Pl. 53).

¹³³ The group also includes a small number of examples displaying head types A, B, and D, and the more schematic e-type sides.

¹³⁴ See Martin 1971: 5 and Ryholt 1997: 34, n. 90.

¹³⁵ Also scarabs of *mr-htp-r^c* Sobkhotep, whom Ryholt reconstructs as Sobkhotep V (1997: 35, Fig. 1).

¹³⁶ King *ḥ^c-htp-r^c* Sobkhotep, whom Ryholt considers as Sobkhotep VI (1997: 34) based on his placing *mr-nfr-r^c* as Sobkhotep V.

¹³⁷ A royal-name scarab of King Khendjer, who is listed in the Turin king-list four lines before Sobkhotep III (Ryholt 1997: 73), displays features identical to those of the early Sobkhotep group scarabs (Hornung and Staehelin 1976: Pl. 8: 103).

¹³⁸ The elaborate naturalistic features of the other example (Tufnell 1984: Pl. 53: 3091) are unusual and cannot be used as a dating criterion. However, the identical display of the royal names on both scarabs argues for their production at the same time, most probably during the 13th Dynasty.

¹³⁹ This is the only unpublished group available for my research.

The scarab bearing the name of a princess (**Pl. 22: 9**) displays a four-paired scroll border with round scrolls, and a central vertical bar ending with a lotus flower, similar to those found on examples displaying design class 6A (**Pl. 13: 2, 39**).

As no other late Middle Kingdom excavated groups are available for comparison, this study includes unprovenanced examples from museum collections, which display typical features of the Sobkhotep group scarabs. The collections used in this study to present late Middle Kingdom features include the published collection of the Ägyptologisches Seminar der Universität Basel (Hornung and Staehelin 1976), and the Israel Museum collection.¹⁴⁰

The features of the Basel scarabs were published only in photographs and they are therefore not presented in the plates of this study. The Basel scarabs are referred to in the text in order to present a larger group that better reflects the popularity of late Middle Kingdom type scarabs.

The Basel collection includes ten royal-name scarabs of the Sobkhotep group (Hornung and Staehelin 1976: Pls. 8-11: 104-108, 112-13, 118, 125-26), and one example with identical features of King Khendjer (no. 103), two scarabs naming queens associated with this group (nos. 127-28), a scarab of a princess (no. 131), and thirty-six private-name scarabs displaying the same characteristic features (Hornung and Staehelin 1976: Pls. 55-63: 510-21, 527, 529-35, 537, 539-44, 549-53, 564-47). The latter include six examples displaying a three-paired scroll border with oblong scrolls (design class 7B3ii) (nos. 517, 520, 527, 529, 532-33), one displaying three linked oblong spirals on either side (no. 534), one displaying a continuous scroll border of round scrolls (design class 7A1) (no. 531), and one displaying a border comprising a single line thread (design class 6A) (no. 530).¹⁴¹ Three pairs of a scroll border with round scrolls survived on a fragmentary example, which may have included four such pairs (no. 535). Two examples display an 8A-type rope border (nos. 551, 553), and one displays two twisted cables flanking the inscription – a variation of design class 8C (no. 564).¹⁴²

The scarab collection at the Israel Museum includes three royal-name scarabs of the Sobkhotep group (**Pl. 22: 2-4**), two scarabs naming queens (**Pl. 22: 10-11**), and the unique scarab bearing the name, title, and idealized image of a princess enclosed in an 8A-type rope border (**Pl. 22: 12**).¹⁴³ The features of this scarab are more naturalistic and elaborate than those of the Sobkhotep group scarabs, but the back corresponds to Martin's type 6p (1971: Pl. 53). A 13th Dynasty date for this scarab is supported by the 13th Dynasty queen (or two)¹⁴⁴ bearing the same name, and the princess Nubhotepti-the child, whose 13th Dynasty date is convincingly argued by Ryholt (1997: 217).¹⁴⁵ As noted above (§IA 10), the idealized image of the princess is identical in type to those found on late Middle Kingdom private-name scarabs (Martin 1971: Pls. 41-42: type 9), the great majority of which display back type 6, which strongly argues for their 13th Dynasty date. The Israel Museum collection includes twenty-one private-name scarabs displaying features of the Sobkhotep group scarabs (**Pl. 24: 1-18, Pl. 25: 1-3**).¹⁴⁶ Five of them display a three-paired scroll border with oblong scrolls – design class 7B3ii (**Pl. 24: 4, 6-7, 13, 18**), and five display an 8A-type rope border (**Pl. 24: 2, 8, 12, 14, Pl. 25: 1**).¹⁴⁷ One example displays a continuous scroll border with oblong scrolls – design class 7A2 (**Pl. 24: 16**), one displays a continuous scroll border with round scrolls – design class 7A1 (**Pl. 24: 9**), and two display a four-paired scroll border with round scrolls – design class 7B4I (**Pl. 24: 1, Pl. 25: 3**). One example displays the image of the owner (**Pl. 24: 10**), and a so-far unique example displays the image of the god Ptah (**Pl. 24: 3**, above, §IA 10).

The private-name scarabs from el-Lisht, the Basel collection, and the Israel Museum collection with characteristic features of the Sobkhotep group scarabs, as well as those displaying back types 6 and 7 in Martin's corpus, attest to the 13th Dynasty date of the bulk of late Middle Kingdom private-name scarabs. A 13th Dynasty date is also indicated for late Middle Kingdom private-name scarabs bearing the funerary epithet *wḥm-ꜥnh* (Martin 1971: 187-88), which is not attested in Egypt before the beginning of the 13th Dynasty (Quirke 1996: 669; Quirke and Fitton 1997: 437). The designs and features of late Middle Kingdom private-name scarabs show distinct differences from those attested on Second Intermediate Period examples (Quirke 2004: 178-86; below, §IIB 3).

¹⁴⁰ Of which only a small number of examples were published in Ben-Tor 1988 and 1989.

¹⁴¹ This type of border is attested on other late Middle Kingdom private-name scarabs (Martin 1971: Pl. 16: 29-32).

¹⁴² Twisted cables are attested on other late Middle Kingdom private-name scarabs (Martin 1971: Pl. 17: 1-9, 11-12).

¹⁴³ See also **Pl. 20: 6**.

¹⁴⁴ See Ryholt 1997: 38-39.

¹⁴⁵ The identification of this princess with the scarab's owner is not entirely impossible considering the lack of space on the scarab's base, which may account for a shorter version of the name. This identification however remains tentative.

¹⁴⁶ Most of them were published in Ben-Tor 1988 and Ben-Tor 1989: 60-61.

¹⁴⁷ Scarab no. 76.31.4516 (**Pl. 24: 14**) is probably the lost scarab from Esna (Downes 1974: 61, group 198, no.1).

§IB 4. Design Scarabs with Features of the Sobkhotep Group Scarabs

Design scarabs with typical features of the Sobkhotep group scarabs are found among the scarabs from el-Lisht, as well as in the Basel and the Israel Museum collections. The el-Lisht scarabs include fifteen such examples all displaying designs attested on seal impressions of the late Middle Kingdom excavated series (Pl. 25: 4-18). Three display patterns of design class 2B (Pl. 25: 4-6). Four display patterns of design class 3B (Pl. 25: 7-10), two display patterns of design class 5 (Pl. 25: 12-13), two display patterns of design class 6A2, (Pl. 25: 14-15), and two display a continuous scroll border of oblong scrolls enclosing the signs *ḥr r* (Pl. 25: 11, 16). Two examples display images of design class 10: the Hathor symbol (Pl. 25: 17) and fecundity figures (Pl. 25: 18).

The Basel collection includes a very small number of scarabs bearing late Middle Kingdom designs, and only four examples with features of the Sobkhotep group scarabs. The latter include one scarab each displaying design class 2A and 2B (Hornung and Staehelin 1976: Pls. 93-94, nos. 841, 846), one displaying design class 7A1 (Hornung and Staehelin 1976: Pl. 96, no. 863), and one displaying design class 10 (Hornung and Staehelin 1976: Pl. 78, no 703).¹⁴⁸

The Israel Museum collection includes over sixty-five scarabs bearing designs that are attested on seal impressions of the late Middle Kingdom series. Twenty-two of them display features of the Sobkhotep group scarabs (Pl. 26: 1-16, Pl. 27: 1-6). One bears a pattern combining design class 2A with two decorated ovals categorized under design class 6B3 (Pl. 27: 4). Eight show patterns of design class 2B (Pl. 26: 1, 4, 6, 8-9, 12-13, Pl. 27: 1), one of them (Pl. 26: 1), depicting the kneeling fecundity figure presenting offerings (above, §IA 10), displays a mixture of design classes 2, 3 and 10. Ten display variations of design class 3: three depict patterns categorized here under design class 3A3 (Pl. 26: 2, 11, Pl. 27: 2), and seven depict symmetric patterns of design class 3B (Pl. 26: 7, 10, 15-16, Pl. 27: 3, 5-6). Two bear variations of design class 6, one depicting a typical pattern of design class 6A2 (Pl. 26: 5), and one depicting a pattern of design class 6B (Pl. 26: 14). One displays a variation of design class 10 depicting the Hathor symbol in a symmetric pattern of hieroglyphs (Pl. 26: 3).

§IB 5. Features of Other Design Scarabs Bearing Late Middle Kingdom Designs

Apart from design scarabs with features of the Sobkhotep group, a representative group of forty-five design scarabs from the Israel Museum collection with typical late Middle Kingdom designs are presented in Pls. 27-29. They display a smaller average size (ca. 17 mm.), mainly C, D, and occasional A heads, and lined as well as plain backs. Twenty of them (Pl. 27: 8, 11-13, 15, 17-18, Pl. 28: 2-3, 6-9, 14, Pl. 29: 3, 7-8, 12-13, 15) display side types with notched fore and hind legs and fringed mid legs – types e6 and d14, which are sometimes difficult to distinguish one from the other, especially in the case of small scarabs. Both side types are first attested on early 12th Dynasty scarabs (Ward 1978a: 30-32).¹⁴⁹ They are also found on private-name and design scarabs displaying distinct Sobkhotep group back and head types (Pl. 22: 13, Pl. 23: 10, Pl. 24: 3, 7-8, 16, Pl. 25: 3, 6-8, 10-11, 14, Pl. 26: 1, 6-8, 10-14), indicating their popularity in the late Middle Kingdom.¹⁵⁰ The other scarabs presented here display a distinct majority of side type d: seven examples of type d5 (Pl. 27: 14, 16, Pl. 28: 1, 4, Pl. 29: 2, 6, 14), eight examples of type d6 (Pl. 27: 9, Pl. 28: 11-14, 16, 18, Pl. 29: 9), two of type d4 (Pl. 29: 10-11), two of type d9 (Pl. 28: 5, Pl. 29: 1), and one of type d8 (Pl. 27: 10). Only one example displays side type e9 (Pl. 27: 7). Two scarabs display the legs in openwork (Pl. 28: 17, Pl. 29: 4), in very fine workmanship and naturalistic form, which differ significantly from side type C of the First Intermediate Period and early Middle Kingdom (Ward 1978a: 31, Fig. 6).

One of the Israel Museum examples displaying design class 6A2 has a back decorated with three lotus flowers and a human face replacing the beetle's head on the back (Pl. 29: 5).

The latter feature, although mainly associated with Second Intermediate Period scarabs, most probably originated on late Middle Kingdom scarabs (below, §IIB).

Unlike the Sobkhotep group scarabs and private-name and design scarabs displaying their features, which show a distinct majority of lined backs, the other Israel Museum design scarabs bearing late Middle Kingdom designs display a more or less equal distribution of lined and plain backs. The designs on these scarabs strongly argue for their late Middle Kingdom date, however considering the lack of comparative excavated material it is not possible to determine if the distribution of their features is typical of late Middle Kingdom design scarabs, and if it has chronological implications. The representative group shown in Pls. 27-29 is of particular importance for comparison with designs and features of the early Palestinian series.

¹⁴⁸ Depicting two fecundity figures (above, design class 10).

¹⁴⁹ 20% of the Montet Jar scarabs display side e6 and the silver scarab of Wah displays side d14 (Ward 1978a: 30, Table 6).

¹⁵⁰ They are however not known to occur on the Sobkhotep group scarabs.

Chapter II

Typology of Second Intermediate Period Scarabs from Egypt and Nubia

Unlike the stylistic homogeneity of the late Middle Kingdom series, which reflects the unity and cultural homogeneity of Egypt during this period, scarabs from Second Intermediate Period contexts in Egypt and Nubia display a stylistic diversity reflecting the cultural diversity of a divided land. This is manifested first and foremost in a significant number of imported Canaanite scarabs and Canaanite-inspired motifs, the quantity of which varies in different regions, reflecting the particular political situation in Egypt during this period (below, §IIb). It is these foreign and foreign-inspired scarabs that are usually defined as Second Intermediate Period or "Hyksos" scarabs (Kemp and Merrillees 1980: 48-49; O'Connor 1985: 34; Bietak 1984a: 483-84; 1991: 52-53; Ward 1987: 523-26). The Canaanite origin of many of these scarabs, though occasionally suggested in early studies,¹⁵¹ was not considered in the typologies of Tufnell (Tufnell 1984) and O'Connor (1985), and was only recently recognized (Keel 1989; 1994; 1995b; Schroer 1985; 1989; Ben-Tor 1997; 1998: 11; in Keel 1997).¹⁵² No attempt was ever made to distinguish Second Intermediate Period scarabs of Egyptian manufacture from Canaanite imports, or to establish a typology of the former. Defining these scarabs and establishing their stylistic and chronological typology is the primary goal of this chapter. The Canaanite origin and production of many of the so-called Hyksos scarabs are argued in the discussion of the Palestinian series (below, chapters III-IV).

The historical and chronological definition of the Second Intermediate Period in Egypt is still a highly controversial issue (Kempinski 1985; 1992: 159-210; Redford 1992: 98-122; Bietak 1994; 1996; 1997; Bourriau 1997; 2000; O'Connor 1997: 48-52; Oren 1997; Ryholt 1997; Schneider 1998; Ben-Tor et al. 1999). The term 'Intermediate Period' is used to describe periods in Egyptian history when the land was divided between rival dynasties (Ryholt 1997: 311-12; Ben-Tor et al. 1999: 67, n. 1). The term Second Intermediate Period should therefore apply to the period between the takeover of the eastern Delta by rulers of Canaanite origin and their expulsion by Ahmose in the early 18th Dynasty (Bourriau 1997: 159; 2000: 185; O'Connor 1997: 45-52). The end of the period is clearly defined historically and archaeologically (Bourriau 1987: 53-57; 1997: 161; 2000: 210-15; Lacovara 1990; O'Connor 1997: 45). However, the beginning of the period, coinciding with the takeover of the eastern Delta by a dynasty of Canaanite origin and the subsequent abandonment of the residence *ḥtj-t3wy*, is still highly debated (Redford 1992: 101-106; Bietak 1997: 108-109; Bourriau 1997: 159; 2000: 190-93; O'Connor 1997: 48-52; Ryholt 1997: 5-6; Ben-Tor et al. 1999). The historical and chronological definition of the Second Intermediate Period was recently discussed in a number of studies, which argue that the takeover of the eastern Delta and the subsequent division of the land took place sometime between the late 18th and early 17th century BCE (Bietak 1991: 51; 1996: 36-41; 1997: 108-109; Bourriau 1991b: 130; 1997: 159; 2000: 190-93; O'Connor 1997: 48-52; Ben-Tor 2003: 246; 2004c: 28-29). Supporting evidence for this date is presented below in chapter III. The chronological range of the Second Intermediate Period in this study therefore includes the period between ca. 1700 and 1540 BCE.

The archaeological evidence of the Second Intermediate Period in Egypt is as yet only partially or preliminarily known and is largely unclear in many regions (Bourriau 1987; 1997; O'Connor 1997). Nevertheless, the extent of the cultural diversity of Egypt during this period has become apparent through the publication of recent excavations in the eastern Delta (Bietak 1984a; 1987; 1991; 1996; 1997; Holladay 1982; 1987; 1992; 1997) and recent studies of Egyptian pottery (Arnold 1972; 1977; 1981; 1982; 1988; Bourriau 1981; 1987; 1990; 1991a; 1991b; 1997). Based on the evidence presented in these publications, it has been argued (Bourriau 1997: 59) that in order to define the Second Intermediate Period in Egypt archaeologically, a division into regions, each with its own archaeological sequence, is required. Based on the analysis of the available evidence, Bourriau (1997: 160-180; 2000: 186-208) suggests a cultural division of Egypt into three main regions: 1. The eastern Delta (including the Wadi Tumilat). 2. The Memphis-Fayum region (including Middle Egypt). 3. Upper Egypt. The cultural difference between the eastern Delta and the rest of Egypt is manifested in the substantial presence of Middle Bronze Canaanite material culture in the former region (Bietak 1984a; 1991; 1996; 1997; Holladay 1982; 1987; 1992; 1997; McGovern and Harbottle 1997) not attested elsewhere (Bourriau 1997: 160). The cultural difference between Upper and Lower Egypt is manifested in distinct variations of Egyptian pottery types (Arnold 1977; 1982; 1988; Bourriau 1991b: 130; 1997). No archaeological record of the Second Intermediate Period is available from Middle Egypt until its southernmost point south of Asyut (Bourriau 1997: 167) – the adjoining region of Middle and Upper Egypt (Baines and Málek 1980: 109, 121). The ceramic assemblages from sites such as Qau and Mostagedda located in this region

¹⁵¹ Such as Weill 1917; Pieper 1927; Petrie 1930: 2-5; Murray 1949. Tufnell suggested a Levantine origin for the "Canaanite ruler" motif (below, §IVA 10a) in an early study (1956) but no longer considers it in her 1984 study.

¹⁵² Ward, following Keel (1989) and Schroer (1985; 1989), accepted the Canaanite origin of examples bearing distinctive Levantine motifs, but argued for the Egyptian manufacture of most so-called "Hyksos scarabs" (Ward 1987: 523-26; 1992b: 737-39; 1994: 191; Ward and Dever 1994: 118-20).

indicate that it belonged within the cultural zone of Upper Egypt during the Second Intermediate Period (Bourriau 1997: 167). The archaeological evidence at Deir Rifeh, however, argues for the cultural affiliation of this site with Lower Egypt, indicating that the region between the Memphis-Fayum region and Deir Rifeh belonged in the Lower Egyptian cultural sphere (Bourriau 2000: 203)¹⁵³. The evidence from sites in the border region between Middle and Upper Egypt thus argues for the location of the border between Upper and Lower Egypt during this period in the region of Cusae, as stated in the Kamose stela¹⁵⁴ (Bourriau 2000: 200-203).

The archaeological discussion of Second Intermediate Period Egypt includes also the evidence from Nubia, though this region was not under Egyptian rule during this period (Smith 1995a: 75-136). The archaeological evidence from Nubian sites proved significant for the historical and chronological reconstruction of the period in different regions in Egypt (Bourriau 1981; 1991b; Lacovara 1987; Smith 1995a: 75-136). Moreover, no study of Second Intermediate Period scarabs can disregard the groups found at Nubia (in Egyptian as well as Nubian cemeteries), which constitute a significant part of the Second Intermediate Period scarab corpus, and have important implications for contemporary relations between Nubia and Egypt.

The dating of the Second Intermediate Period excavated series is based primarily on the ceramic assemblages associated with them. Defining the pottery of the Second Intermediate Period is not a clear-cut matter, however, as different ceramic traditions are attested during this period in Upper and Lower Egypt. In the Memphis-Fayum region the Middle Kingdom "residence style" of the 12th Dynasty continues to develop throughout the 13th Dynasty and the Second Intermediate Period (Bourriau 1991b: 130; 1997: 164-66). This classic Middle Kingdom style is, however, replaced in Upper Egypt by a new style sometime during the 13th Dynasty, probably before the residence in the el-Lisht-Memphis region was abandoned (Bourriau 1997: 168). This new style, which draws on older Upper Egyptian ceramic traditions, continues to develop in Upper Egypt during the Second Intermediate Period, and is established as the dominant style throughout Egypt when the land is reunited in the early 18th Dynasty (Bourriau 1991b: 130; 1997: 164-65).

The Second Intermediate Period ceramic assemblages from Upper and Lower Egypt clearly display the different traditions that developed in these regions during this period. However, they do not provide a clear identification of the transition from the late Middle Kingdom to the early Second Intermediate Period in either of these regions, nor do they allow us to determine the precise date of this transition. The early Second Intermediate Period in the Memphis-Fayum region is represented by pottery forms of the types found in complex 7 at Dahshur, dated by Arnold within the range of ca. 1760-1650 BCE (Arnold 1982: 42; Bietak 1997: 127).¹⁵⁵ These forms continue to develop in Lower Egypt, where they are attested well into the Second Intermediate Period, probably until the Theban and Hyksos wars (Bourriau 1997: 163-67, and Figs. 6.12 - 6.13; 2000: 196-99; Smith 1995a: 83). The dating of the Upper Egyptian deposits is based on pottery groups from cemeteries (Bourriau 1997: 167-68) that allow a general division between early and late Second Intermediate Period forms (Bourriau 1997, Figs. 6.15 - 6.19). The early forms, however, represent also the late Middle Kingdom, as they appear before the abandonment of the residence in the advanced 13th Dynasty (Bourriau 1997: 168). Ceramic evidence for the final phase of the Second Intermediate Period in Upper Egypt comes from Deir el-Ballas, the short-lived royal residence near Thebes from which the Theban kings of the late 17th Dynasty and early 18th Dynasty probably launched their campaigns against the Hyksos (Lacovara 1990; Bourriau 1991b: 131). It is this type of pottery that spread northward during the Theban and Hyksos wars and was established throughout Egypt in the early 18th Dynasty (Bourriau 1997: 168), when it is identified also in Lower Egypt (Bourriau 1997: 161).

The excavated scarab series of the Second Intermediate Period include scarabs from the eastern Delta and Wadi Tumilat, the Memphis-Fayum region, northern and southern Upper Egypt, and Nubia. In contrast with the late Middle Kingdom excavated series, which comprise a distinct majority of sealings from administrative units of settlements, the Second Intermediate Period series comprise mainly scarabs from cemeteries. Sealings are rarely attested in Second Intermediate Period contexts,¹⁵⁶ indicating that the late Middle Kingdom administrative use of

¹⁵³ Although Deir Rifeh is located south of Asyut, and very close to Mostagedda on the opposite side of the Nile, Baines and Málek (1980: 109) include Deir Rifeh in Middle Egypt, and Mostagedda in northern Upper Egypt.

¹⁵⁴ Redford 1997: 13, Kamose Stela I, lines 5, 6.

¹⁵⁵ More likely beginning sometime later, perhaps even ca. 1700 BCE (Arnold 1982: 40; Smith 1995a: 58; Bietak 1997: 127).

¹⁵⁶ The sealing system at Askut was abandoned in the early Second Intermediate Period (Smith 1995a: 89, 106). Only a handful of sealings at Elephantine (from deposits 6, 7, 8, 9, 45, 46) are attributed by Von Pilgrim (1996: 303, 308) to stratum 11/XI, and only one Second Intermediate Period royal-name sealing was found in the town associated with the mortuary complex of Senwosret III at Abydos (Wegner 1998: Fig. 20: 6), and no private-name sealings with Second Intermediate Period characteristics.

scarabs ended in the early Second Intermediate Period.¹⁵⁷ It is interesting to note, however, that sealings attesting to administrative use of scarabs in the Second Intermediate Period were found at Kerma (Reisner 1923: 38-39, 81, Pls. 2-3, Figs. 168-69; Gratién 1991; 1998), which was not under Egyptian rule at that time. The occurrence of sealings stamped by local seals among the Kerma sealings (Reisner 1923: Fig. 168: 1-35) corroborates the production and use of this group by the local administration. This Egyptian-inspired custom was most probably adopted at Kerma from the late Middle Kingdom Egyptian administration in the second cataract forts (Smith 1995b).¹⁵⁸ It is important to note here a recent find of about 50 sealings from a mid 18th Dynasty context at Tell el-Dab`a (Bietak 2004). The 18th Dynasty date of the sealings is confirmed by isolated examples bearing 18th Dynasty designs (Bietak 2004: Figs. 7-8), but the bulk of the sealings display Second Intermediate Period and late Middle Kingdom designs. The latter argue for the likely continuation of the late Middle Kingdom practice of using scarabs as administrative seals at Tell el-Dab`a during the Second Intermediate Period through the early 18th Dynasty.¹⁵⁹ If this is indeed the case, these sealings suggest the adaptation of the late Middle Kingdom sealing system in the Hyksos capital as well as in the Kushite capital. The absence of Second Intermediate Period sealings elsewhere in Egypt argues that as in the case of Kerma this administrative practice was implemented only at Avaris.

The Second Intermediate Period series include a large number of scarabs from plundered and reused tombs in which the contexts are often mixed. Moreover, many examples come from old excavations and the dates attributed to their contexts are frequently based on unreliable evidence (below). Very few groups come from deposits that can be attributed – based on their ceramic assemblages – to particular phases within the Second Intermediate Period; the most securely dated among them come from tombs associated with occupation levels at Tell el-Dab`a. The Tell el Dab`a scarabs constitute a unique group among the scarabs of this period; they include locally made scarabs, some of them – mainly those found in the early levels of the Asiatic settlement – rarely attested elsewhere, mixed with Egyptian and Canaanite scarabs. The particular characteristics of the Tell el-Dab`a scarabs corroborate the identification of the site with Avaris, as they indicate the existence of a local workshop (expected at the residence) that was inspired by both Egyptian and Canaanite cultures (Mlinar 2004; below, §IIB 5c). The two other eastern Delta sites in which scarabs of this period were found – Tell el-Maskhuta and Tell el-Yehudiyeh – yielded a significant number of Canaanite scarabs, which reflect the origin of the population at both sites (below, §IIB 5a-5b). Considering the heavy Canaanite influence on the eastern Delta excavated series, the groups found at sites outside this region, where evidence for Canaanite Middle Bronze culture is minimal or absent, are discussed first, as they are more likely to include scarabs manufactured outside the Levantine-inspired cultural sphere.

As noted above, the Second Intermediate Period excavated scarab series frequently come from mixed archaeological contexts. Moreover, some groups of scarabs were found in early 18th Dynasty contexts (Kemp and Merrill 1980: 49-50), occasionally causing confusion and the misdating of their contexts.¹⁶⁰ The number of "heirloom" scarabs in Second Intermediate Period and early New Kingdom contexts attests to the common reuse of scarabs in Egypt during these periods (Bourriau 1987: 51, and below). The identification of Late Middle Kingdom scarabs in such contexts is based on their distinctive designs and features. Their small number compared with the late Middle Kingdom series suggests that their production ceased after the abandonment of the late Middle Kingdom capital *ḫtj-t3wy*. Major changes in scarab style are attested in the early 18th Dynasty (Tufnell 1984: 24, 110 Fig. 22; Ward and Dever 1994: 6), allowing for the distinction of these scarabs from those of the Second Intermediate Period (below).¹⁶¹

§IIa. Sealings from late Middle Kingdom administrative units that continued into the early Second Intermediate Period

A handful of sealings from late Middle Kingdom administrative units display characteristics that are not attested on late Middle Kingdom type scarabs, indicating the continuation of the sealing systems in these units into the early Second Intermediate Period. Such examples were found at Kom Rabi`a/Memphis, south Abydos, Elephantine, and perhaps also Uronarti. As noted above, the transition from the late Middle Kingdom to the early Second Intermedi-

¹⁵⁷ The Second Intermediate Period royal-name sealings presented by Ryholt include, apart from the Uronarti example (below), only sealings found outside Egypt : from Kerma (1997: 360: 11, 382: 7), Carthage in secondary context (1997: 366: 1), and Palestine (1997: 384: 10).

¹⁵⁸ Scarab impressions on handles of Canaanite jars do not reflect an Egyptian custom, nor do they represent administrative use of scarabs (Brandl 1993a: 130-31; 1993b: 207-11; Ben-Tor 1994).

¹⁵⁹ The almost complete absence of sealings at Tell el-Dab`a, even in occupation levels dating from the late Middle Kingdom, is undoubtedly the result of the humid conditions at the site. Only a single late Middle Kingdom sealing was found at the site, made by a private-name scarab bearing the name and title of the mayor of Avaris *ḫmḥ-snb* (Czenry 2002).

¹⁶⁰ As, for example, in the case of the burials at Abusir el-Meleq and in Mayana cemetery K at Sedment (Bourriau 1997: 167).

¹⁶¹ Some of the early 18th Dynasty scarabs continue Second Intermediate Period traditions of both Egyptian and Canaanite scarabs.

ate Period cannot be defined by pottery forms in both Upper and Lower Egypt. The dating of particular sealings to the early Second Intermediate Period is therefore based on royal names, and on designs unknown in the late Middle Kingdom series but commonly attested in Second Intermediate Period contexts in Egypt or Palestine.¹⁶² The ceramic contexts of these examples, when available, support a date within the range of the final phase of the late Middle Kingdom and the early Second Intermediate Period.

§IIa 1. Memphis

Two examples were found at Memphis during recent excavations at Kom Rabi`a among a late Middle Kingdom group of discarded sealings (Giddy and Jeffreys 1993: 20; Richards 2001: 303; Memphis 1-2). Both examples are fragmentary and both bear variations of the nr^c formula (design class 3C) that are commonly attested on Canaanite scarabs (below §IIIA 3c, §IVA 3c). Other sealings from Kom Rabi`a have not been published; however, we do have the excavators' statement that all sealings were found in late Middle Kingdom occupation levels (Giddy and Jeffreys 1993: 20). The two sealings bearing the nr^c formula argue for the continuation of the late Middle Kingdom administrative units at the site into the early Second Intermediate Period.¹⁶³

§IIa 2. Abydos

The south Abydos published sealings include one fragmentary example bearing the royal-name $\text{sw}^3\text{d}-[n]-r^c$ (Wegner 1998: 37, Fig. 20: 6), the prenomen of King Nebiryaw I. This king is identified as one of the Second Intermediate Period Theban kings, based on his position in the Turin kinglist and on the distribution of his monuments (Ryholt 1997: 261, 389-90). His dynastic affiliation to the 17th Dynasty (Wegner 1998: 37) is, however, controversial (Ryholt 1997: 158, 261, 389; J. Allen in Ben-Tor et al. 1999: 67; Bourriau 2000: 198), and there is insufficient evidence to establish the precise date of his reign. Ryholt (1997: 202) dates this king between ca. 1627 and 1601 BCE, while Bourriau (2000: 198) suggests a date between ca. 1615 and 1595 BCE, noting, however, that these dates are tentative. Wegner states that the mortuary temple of Senwosret III appears to have ceased functioning at the end of the Middle Kingdom, but the adjacent town most probably continued throughout the Second Intermediate Period into the 18th Dynasty (Wegner 2001b: 307-308). The precise date of the $\text{sw}^3\text{d}-[n]-r^c$ sealing, which did not originate in a clear context, remains uncertain.

§IIa 3. Elephantine

Only one example displaying Second Intermediate Period characteristics (Von Pilgrim 1996, Fig. 105: 95) is attested among the Elephantine sealings attributed to stratum 12/XII, which was recently dated by Anne Seiler, based on pottery analysis, to the early Second Intermediate Period (Seiler in Kaiser et al. 1999: 223). The sealing displays a design that is not attested on Middle Kingdom Egyptian scarabs but is commonly found on Canaanite scarabs (e.g. Tufnell 1984: Pl. 9: 1440, 1443, 1445, 1453, 1460, 1464, and below, §IIIA 3a3-3a4) arguing for the Canaanite origin of the scarab used for the sealing. Anne Seiler, who prepared the pottery from strata 12/XII and 11/XI for publication, states (personal communication) that stratum 12/XII probably begins in the late 13th Dynasty but the bulk of the pottery is of the early Second Intermediate Period. She further states that there are only small differences in shape and fabric between the pottery of strata 12/XII and 11/XI, indicating that they constitute in fact one occupation level and not two separate ones as suggested by Von Pilgrim.¹⁶⁴ Ten sealings are assigned by Von Pilgrim to stratum 11/XI, which is dated by him to the 17th Dynasty (Von Pilgrim 1966: 15). These include three sealings from deposit 46 (Von Pilgrim 1996: Fig. 103: 45, Fig. 105: 44, 81),¹⁶⁵ one sealing each from deposits 6, 7, and 8 (Respectively Von Pilgrim 1996: Fig. 103: 189, Fig. 99: 134, Fig. 98: 282), and two sealings each from deposits 9 and 45 (Respectively Von Pilgrim 1996: Fig. 103: 46, 256, 105: 27, 78). Five of the ten sealings display Middle Kingdom designs,¹⁶⁶ and five display designs that are typical of Canaanite scarabs and are not attested on Middle

¹⁶² It is argued below (introduction to chapter III) that the Middle Bronze Palestinian series date almost exclusively to the Second Intermediate Period, except for a small number of imported Middle Kingdom heirlooms. It is also argued there that the Canaanite production of scarabs begins in the early MBIIb (ca. 1700 BCE) soon after scarabs are first imported into Palestine.

¹⁶³ For the Second Intermediate Period occupation at the site see Bourriau 1997: 161-67.

¹⁶⁴ I wish to express my sincere gratitude to Anne Seiler for sharing her conclusions with me.

¹⁶⁵ Deposit 46 is associated with strata XI-XII (Von Pilgrim 1996: 308).

¹⁶⁶ Nos. 45, 46, and 189 (Von Pilgrim 1996: Fig. 103) display typical late Middle Kingdom variations of design class 3. No. 282 (Von Pilgrim 1996: Fig. 98) is a private-name sealing too fragmentary to read the name and title, but not displaying any Second Intermediate Period characteristics. No. 134 (Von Pilgrim 1996: Fig. 99) displays a C scroll and the combination $k^3 nfr$ suggesting it was stamped by an early Middle Kingdom scarab (Ward 1978a: 56, Pl. 11: 276-82).

Kingdom Egyptian scarabs. The latter include Nos. 256 (Von Pilgrim 1996, Fig. 103),¹⁶⁷ 44 (Von Pilgrim 1996: Fig. 105)¹⁶⁸, 27, 78 and 81 (Von Pilgrim 1996: Fig. 105).¹⁶⁹

The dating of stratum 11/XI at Elephantine was based on ceramic assemblages (Von Pilgrim 1996: Figs. 142-47).¹⁷⁰ Dorothea Arnold, who kindly examined the published pottery at my request¹⁷¹ states that stratum 11/XI yielded many types of the late "classic Middle Kingdom" i.e. Memphite 13th Dynasty style. She further states that most types shown by Von Pilgrim occur in both Upper and Lower Egypt except those in Von Pilgrim 1996: Figs. 144:d, 144:f and 145:b, which are Upper Egyptian types, and 144:a, which seems to be an Upper Egyptian version of a Memphite marl clay type. Fig. 144: d is according to Arnold the most distinct Upper Egyptian type in the group, similar to an example displayed by Bourriau among early Second Intermediate Period Upper Egyptian forms (Bourriau 1997, Fig. 6.19: 8), which is still partly contemporary with the 13th Dynasty in the north (above). Arnold concludes that the pottery that Von Pilgrim shows from stratum 11/XI is still closely linked with the Memphite 13th Dynasty, and has parallels in the advanced 13th Dynasty in the Memphite region¹⁷² while some exclusively Upper Egyptian types make their first appearance. Summing up Arnold's observations, the pottery from stratum 11/XI at Elephantine supports a relatively early Second Intermediate Period date,¹⁷³ which is implied by the continuation of the sealing administrative system. Arnold's observations also support Seiler's conclusion that strata 12/XII and 11/XI represent one occupation level.

§IIa 4. Uronarti

The pottery associated with the Uronarti sealings was recently dated by Susan Allen to the advanced 13th Dynasty – early Second Intermediate Period (S. Allen in Ben-Tor et al. 1999: 55-58). The bulk of the Uronarti sealings reflect the last phase of the late Middle Kingdom administrative activities at the site, and display mainly late Middle Kingdom designs (above, introduction to chapter I). One example, however, bears the royal name *m3^c-ib-r^c* (Reisner 1955: Fig. 14: 387), considered by most scholars as the prenomen of King Sheshi who is identified as one of the Second Intermediate Period foreign rulers at Avaris (Ben-Tor et al. 1999: 55; below, §IIB 1). The date attributed to the context of the Uronarti sealings in general and the *m3^c-ib-r^c* sealing in particular have significant implications for the sequence and absolute chronology of the foreign rulers at Avaris (Ryholt 1997: 42, 321-22; S. Allen in Ben-Tor et al 1999: 55-58). The early Second Intermediate Period date for the *m3^c-ib-r^c* sealing was considered to be secure based on the assumption that all surviving sealings from Uronarti represent the final phase of the Middle Kingdom occupation of the fort (S. Allen in Ben-Tor et al. 1999: 56-58). However, one fragmentary sealing from the site (Reisner 1955: Fig. 16: 428) bears a variation of the *ε_{nr}^c* formula that strongly argues for an early 18th Dynasty date (Jaeger 1982: 323, ill. 816). The Canaanite Second Intermediate Period origin of the *ε_{nr}^c* formula is discussed in detail below (§IIIA 3c). The Uronarti example, however, differs from most variations attested in the Egyptian and Palestinian excavated series of the Second Intermediate Period. The signs comprising the formula flank a Hathor symbol depicted in the typical Egyptian form (above §IA 10), which differs notably from its depiction on Canaanite scarabs (Tufnell 1984: Pl. 48; Schroer 1989; and below, §IVA 10d2). The particular design occurring on the Uronarti sealing is not attested on Middle Kingdom or Egyptian Second Intermediate Period scarabs, and it is found on Canaanite scarabs only with the Canaanite form of the Hathor symbol.¹⁷⁴ It occurs, however, in a form identical to that occurring on the Uronarti sealing, on 18th Dynasty scarabs and design amulets (Petrie 1925: Pl. 16: 1204; Jaeger 1982: 323, Fig. 816).¹⁷⁵ The occurrence of even one 18th Dynasty example among the Uronarti

¹⁶⁷ Design class 3B. For Canaanite parallels see Tufnell 1958: Pls. 30, 32: 58, 118, 119; Tufnell 1984: Pl. 8b: 1373, 1399, and below, §IIIA 3b3, §IVA 3b3.

¹⁶⁸ Design class 10C. For Canaanite parallels see Tufnell 1984: Pl. 47, and below, §IVA 10c.

¹⁶⁹ Displaying Canaanite variations of the *ε_{nr}^c* formula (Tufnell 1984: Pl. 19).

¹⁷⁰ Von Pilgrim (1996: 15) dates this stratum to the 17th Dynasty. This dynastic association of Second Intermediate Period ceramic deposits in Upper Egypt, which is also suggested by Wegner at south Abydos (Wegner 1998: 37) is largely speculative. The evidence for the absolute chronology of the Theban dynasties during the Second Intermediate Period, and for the dynastic affiliation of many of the kings is inconclusive (Ryholt 1997: 151-83, 201-204; J. Allen in Ben-Tor et al 1999: 52, 66-67).

¹⁷¹ Letter sent in February 2003, for which I express my sincere gratitude.

¹⁷² Arnold confirms this statement by comparing the vessel presented in Von Pilgrim 1996: Fig. 144: b to a vessel published by her (1977: 28, Fig. 1: II 6), which belongs to the same group as complex 7 at Dahshur (Arnold 1982: 34-35, Figs. 10-11). This type is also presented by Bourriau (1997: Figs. 6.12-13).

¹⁷³ Sealing No. 44 (Von Pilgrim 1996: Fig. 105) depicts a kneeling falcon-headed figure (design class 10C) – a design that is attested only in the late Palestinian series, thus indicating a continuation of stratum 11/XI at least until ca. 1640 BCE (below, §IVA 10c).

¹⁷⁴ See Schroer 1989: 141, Nos. 58, 60, and Figs. 085, 088.

¹⁷⁵ Other variations of the *ε_{nr}^c* formula are found on 18th Dynasty scarabs and design amulets (Jaeger 1982: 97, 295, Figs. 230, 680-82), as well as other Canaanite designs like the antelope and branch (Jaeger 1982: 158-59, § 1163-65).

sealings¹⁷⁶ argues for some sealing activity at the site in the early New Kingdom, and casts serious doubts on the early Second Intermediate Period date of the *m3^c-ib-r^c* sealing (below, §IIB 1).¹⁷⁷

Summary

The few Second Intermediate Period sealings discussed above indicate that except for isolated cases late Middle Kingdom scarabs continued to be used in the administrative units that survived into the early Second Intermediate Period. Of the few examples displaying Second Intermediate Period characteristics, the design sealings display exclusively Canaanite designs, indicating that they were stamped using Canaanite scarabs. The royal-name sealings from Uronarti and south Abydos were undoubtedly stamped by scarabs manufactured in Egypt, the former was most probably made at Avaris, and the latter at Thebes (below, §IIB 1-2). The scarabs used for these royal-name sealings date from the Second Intermediate Period, but the date of the sealings themselves is far from certain and both may be products of the early New Kingdom.

§IIB. Second Intermediate Period Scarabs from Cemeteries

§IIB 1. The Memphis-Fayum Region

Only two sites in the Memphis-Fayum region have yielded groups of Second Intermediate Period scarabs – the north pyramid cemetery at el-Lisht, and the Mayana cemetery K at Sedment.

§IIB 1a. North pyramid cemetery at el-Lisht

Scarabs displaying Second Intermediate Period characteristics were found in the settlement debris and in reused tombs in the north pyramid cemetery at el-Lisht. As noted above (§IB 2-3), the bulk of the el-Lisht scarabs display late Middle Kingdom characteristics; however, Second Intermediate Period and New Kingdom scarabs were found in the settlement debris and in some of the reused tombs. The ceramic evidence from the site suggests that its Middle Kingdom occupation continued into the Second Intermediate Period (Arnold et al. 1995: 26; Bourriau 1997: 166-67). Moreover, it was recently argued, based on types of Tell el-Yehudiyeh vessels found in some of the tombs that the occupation continued into the advanced 15th Dynasty (Bourriau 2000: 197-98). A break in occupation during the time of the Hyksos and Theban wars and the early 18th Dynasty is indicated by the absence of Upper Egyptian pottery of the type found at Deir el-Ballas. The site is settled again only during the reign of Tuthmosis III (Bourriau 2000: 198).

Attributing the Second Intermediate Period scarabs at the site to particular phases of the period is not possible, as most examples were found in the settlement debris that also yielded scarabs of the 18th and 19th Dynasties, reflecting the New Kingdom occupation at the site. Even examples found in tombs were not necessarily deposited in the Second Intermediate Period; two New Kingdom scarabs, one bearing the nomen and the other bearing the prenomen of Tuthmosis III, were found respectively in tombs 410 and 805.¹⁷⁸ These two scarabs may constitute late intrusions, but they may also suggest the reuse of these tombs in the New Kingdom. The gap in occupation at the site in the early 18th Dynasty does not indicate that all Second Intermediate Period scarabs were deposited during the Second Intermediate Period occupation; late Middle Kingdom and Second Intermediate Period scarabs are known to occur in deposits containing scarabs of Tuthmosis III.¹⁷⁹

The Second Intermediate Period scarabs from el-Lisht include four royal-name scarabs: two bearing the prenomen *sw3d-n-r^c*¹⁸⁰ discussed above on the sealing from south Abydos and two bearing the prenomen *sh̥tp-ib-r^c*.¹⁸¹ The Second Intermediate Period date of the scarabs of *sw3d-n-r^c* is now largely accepted (Ryholt 1997: 389; Wegner 1998: 37; Bourriau 2000: 198).¹⁸² The scarabs bearing the name *sh̥tp-ib-r^c* were considered by Hayes as

¹⁷⁶ Other possible 18th Dynasty examples among the Uronarti sealings are presented in Reisner 1955: Fig. 16: 426-27, 429-32, 438-40. Unfortunately, their state of preservation does not allow a reconstruction of their designs or absolute dates. I am grateful to Yvonne Markowitz for informing me that Reisner had long suspected the occurrence of 18th Dynasty intrusions in the main deposits of the Uronarti sealings.

¹⁷⁷ The reuse of Second Intermediate Period scarabs in the early New Kingdom is well attested in cemeteries throughout Egypt and Nubia (below). It is also attested in the recent find of 18th Dynasty sealings at Tell el-Dab`a made by late Middle Kingdom and Second Intermediate Period scarabs (Bietak 2004).

¹⁷⁸ These scarabs are recorded in the tomb cards at the MMA. Neither scarab has an MMA accession number; both were deaccessioned and are no longer at the MMA.

¹⁷⁹ As for example at Esna (Downes 1974: 60, 61, 63, 64: tombs 28, 198, 247, 263, 269).

¹⁸⁰ MMA 22.1.314, MMA 22.1.335 (Ryholt 1997: 389, File 16/6: 1).

¹⁸¹ MMA 09.180.1203, MMA 09.180. 1204.

¹⁸² Hayes dated one of the scarabs of this king (MMA 22.1.314) to the Second Intermediate Period (Hayes 1959: Fig. 1) and one (MMA 22.1.335) to the 13th Dynasty (Hayes 1953: Fig. 226). The scarabs are, however, identical in every respect – mate-

bearing the prenomen of Amenemhat I (Hayes 1953: 176). These scarabs display, however, characteristics that are identical to those of the *sw3d-n-r^c* scarabs in every respect; material (glazed composition), features, size, crude engraving of the hieroglyphs, absence of a cartouche or any additional design, and most important, the color and poor quality of the glazed composition, and crude workmanship. The striking similarity between the scarabs of the two kings strongly suggests a close chronological range and even the same workshop, although the second king is not attested elsewhere.¹⁸³ There is no evidence to suggest whether the *shlp-ib-r^c* scarabs commemorate Amenemhat I or bear the name of a so far unknown Theban ruler of the Second Intermediate Period. All four scarabs were found in the settlement debris, and it is therefore not possible to determine if they were deposited at the site during the Second Intermediate Period or the New Kingdom.

Three design scarabs displaying Canaanite characteristics were found in reused tombs at el-Lisht. One displays design class 9C2 (MMA 15.3.155),¹⁸⁴ one displays design class 9B (MMA 15.3.181),¹⁸⁵ and one displays design class 10D2 (MMA 15.3.325).¹⁸⁶ The settlement debris yielded five Canaanite design scarabs, one displaying design class 4 (MMA 09.180.1222),¹⁸⁷ two displaying design class 9B (MMA 20.1.28; 22.1.329),¹⁸⁸ one displaying design class 10D2 (MMA 22.1.408),¹⁸⁹ and one displaying design class 10A2c (MMA 22.1.431).¹⁹⁰ The Canaanite production of scarabs bearing these designs is discussed in detail below (chapters III-IV).

§IIb 1b. Mayana cemetery K at Sedment

The Mayana cemetery K at Sedment is a small cemetery of men, women, and children displaying non-Egyptian burial customs (Bourriau 1997: 167), in which 66 scarabs and design amulets were used as funerary amulets (Petrie and Brunton 1924: 16-21, Pl. 43). The absence of Nubian or Canaanite artifacts does not allow determining the ethnic identity of the people interred (Bourriau 1997: 167; 2000: 199). However, the Egyptian pottery found in the graves dates the cemetery to the period between the Hyksos and Theban wars and the early 18th Dynasty (Bourriau 1997: 167; 2000: 199). The deposition of the scarabs found in the graves is therefore securely dated between the final phase of the Second Intermediate Period and the early 18th Dynasty. The cemetery yielded six scarabs with distinctive Canaanite characteristics: one displays design class 10A1c (Petrie and Brunton 1924: Pl. 43: 9),¹⁹¹ two display design class 3C (Petrie and Brunton 1924: Pl. 43: 12, 15),¹⁹² one displays design class 9C3 (Petrie and Brunton 1924: Pl. 43: 23),¹⁹³ and one displays design class 3A3 (Petrie and Brunton 1924, Pl. 43: 31).¹⁹⁴ It is important to note that as in the case of most other excavated series of this period the scarabs from Mayana cemetery K include also Middle Kingdom heirlooms (Petrie and Brunton 1924: Pl. 43: 10, 22, 63). The latter are significantly earlier than the late Second Intermediate Period context in which they were interred, hence their definition as heirlooms. The common occurrence of Middle Kingdom heirlooms in the Second Intermediate Period excavated series in Egypt and Nubia frequently misled scholars who overestimated their chronological significance (below). Cemetery K yielded also thirteen scarabs displaying distinctive early 18th Dynasty characteristics (Petrie and Brunton 1924, Pl. 43: 5-7, 52-54, 56-62, and possibly 55), which confirm the continuation of the cemetery into this period. It should be noted that the early 18th Dynasty scarabs come from six tombs (nos. 909, 910, 1204, 1231, 1352, 1371) none of them containing earlier scarabs. The early 18th Dynasty date of tombs 909, 910, 1204, and 1231 was confirmed by Dorothea Arnold who examined the published pottery at my request.¹⁹⁵ There is no information from tomb 1352 and no pottery from tomb 1371.

rial, features, presentation and form of hieroglyphs – and Ryholt correctly dated both to the Second Intermediate Period and attributed them to the same king.

¹⁸³ Ryholt includes only one king bearing the prenomen *shlp-ib-r^c*, whose affiliation with the early 13th Dynasty is indicated by his listing in the Turin kinglist (Ryholt 1997: 73, 338-39). The style of the royal-name scarabs found at el-Lisht strongly argues against a 13th Dynasty date and the identification of these scarabs as royal-name scarabs of this king.

¹⁸⁴ From tomb 460. For parallels see Tufnell 1984: 132, Pl. 37: 2530, 2537, 2539.

¹⁸⁵ From tomb 468. For parallels see Tufnell 1984: 132, Pl. 36: 2502, 2507.

¹⁸⁶ From tomb 830. For parallels see Tufnell 1984: 138, Pl. 48.

¹⁸⁷ For parallels see Tufnell 1984: 138, Pl. 48.

¹⁸⁸ For parallels see Tufnell 1984: Pl. 36.

¹⁸⁹ For parallels see Tufnell 1984: Pl. 48: 2848-2863.

¹⁹⁰ For parallels see Tufnell 1984: Pl. 44: 2763-2768.

¹⁹¹ For parallels see Tufnell 1984: Pl. 42: 2710-2721.

¹⁹² For parallels see Tufnell 1984, Pl. 16.

¹⁹³ For parallels see Tufnell 1984: Pl. 37: 2541-2560.

¹⁹⁴ For parallels see Tufnell 1984: Pl. 8: 1358-1360.

¹⁹⁵ Letter sent in April 2005, for which I am very grateful.

§IIb 2. Northern Upper Egypt

Northern Upper Egypt extends between Asyut and Thebes (Baines and Málek 1980: 108-9). Groups of Second Intermediate Period scarabs were found in cemeteries from three sites in the northernmost part of this region – Mostagedda, Qau-Badari, and Matmar, and one site in its southern part, Hu.

§IIb 2a. Mostagedda

At Mostagedda, Second Intermediate Period scarabs were found in a mixed cemetery of Pan-grave¹⁹⁶ and Egyptian tombs. The great majority of the scarabs come from the Egyptian tombs (Brunton 1937: 133-34, Pls. 69-71), while the large Pan-grave cemetery yielded only nine scarabs (Brunton 1937: 127).¹⁹⁷ Bourriau notes (2000: 202) two phases of Pan-graves at Mostagedda, which can be placed into a chronological sequence, according to the degree to which they display Egyptian burial customs.¹⁹⁸ These two phases are also represented in the Upper Egyptian pottery from the cemetery (Bourriau 1997: 167-68). Six of the scarabs found in Pan-graves come from circular or oval tombs,¹⁹⁹ associated with the early Pan-grave settlers, and dating mainly from the late Middle Kingdom and early Second Intermediate Period (Brunton 1937: 127; Bourriau 1981: 27-31).²⁰⁰ Only two scarabs were found in rectangular tombs (Brunton 1937: Pl. 69: 32, 36)²⁰¹ associated with the later Pan graves of the Second Intermediate Period (Bourriau 1981: 31), both display typical Canaanite designs.²⁰² The Egyptian Second Intermediate Period tombs range between the early Second Intermediate Period and the early 18th Dynasty (Bourriau, personal communication)²⁰³, and yielded forty scarabs²⁰⁴ four of them displaying typical Canaanite designs.²⁰⁵

§IIb 2b. Qau-Badari

Egyptian tombs of the Second Intermediate Period at Qau-Badari yielded seventy-six scarabs and design amulets (Brunton 1930: 12, Pl. 19). The few scattered Pan graves in the Qau-Badari region (Brunton 1930: 4-7) did not yield any scarabs. It has been noted that the two Second Intermediate Period ceramic phases attested at Mostagedda are also found at Qau (Bourriau 1997: 168; 2000: 203). The tombs that yielded scarabs range between the early Second Intermediate Period and the early 18th Dynasty (Bourriau personal communication). Of the seventy-six scarabs and design amulets found in these tombs at least five constitute Middle Kingdom heirlooms (Brunton 1930: Pl. 19: 1, 32, 50, 53, 61), five display distinctive early 18th Dynasty characteristics (Brunton 1930: Pl. 19: 43, 44, 54-56), and fourteen display distinctive Canaanite characteristics.²⁰⁶

§IIb 2c. Matmar

The Second Intermediate Period cemetery at Matmar is much smaller than the cemeteries of this period at Mostagedda and Qau-Badari, and most tombs were badly plundered and disturbed (Brunton 1948: 56-58). The Egyptian pottery found in the cemetery has parallels in the Qau-Badari and Mostagedda Second Intermediate Period cemeteries, with forms indicating that it continues into the early 18th Dynasty (Brunton 1948: 56). The pottery from the cemetery includes, as in Mostagedda and Qau-Badari, both early and late Second Intermediate Period forms

¹⁹⁶ For the Pan-grave people see Bourriau 1981: 27-31; Säve-Söderbergh 1989: 15-19.

¹⁹⁷ Brunton 1937: Pl. 69: 14, 15, 32, 36, 38, 39 (two examples), 40, 41.

¹⁹⁸ See also Bourriau 1981: 28.

¹⁹⁹ Brunton 1937: Pl. 69: 14 (tomb 3212), 15 (tomb 3136), 38 (tomb 3170), 39 (tombs 3248), 40 (tomb 3224), 41 (tomb 3214). Another example of No. 39 was found in tomb 3234, the shape of which is not recorded (Brunton 1937: 119).

²⁰⁰ Of these six scarabs, two (Brunton 1937: Pl. 69: 14, 15) are late Middle Kingdom-type scarabs, and possibly also three of the *rdi-r^c* scarabs (Brunton 1937: Pl. 69: 38, 40, 41), which are attested in late Middle Kingdom as well as Second Intermediate Period contexts (above, §IA 3c). The two *rdi-r^c* type scarabs represented by one example in No. 39 display, however, a Second Intermediate Period variation of the design (below, design class 3C). Brunton's statement (1937: 127) that this type was found at the site in all types of graves indicates that tomb 3234 is rectangular.

²⁰¹ No. 32 in tomb 3243, and No. 36 in tomb 3203 (Brunton 1937: 118, 120).

²⁰² No. 32 displays design class 10A2c (Tufnell 1984: Pl. 44: 2763-2768), and No. 36 displays design class 9D (Tufnell 1984: Pl. 39: 2602).

²⁰³ E-mail message sent in August 2001.

²⁰⁴ Brunton 1937, Pl. 69, displayed under the title Second Intermediate Period, except for the 9 scarabs from the Pan-grave tombs (above).

²⁰⁵ Brunton 1937: Pl. 69: 33 – design class 9F (Tufnell 1984: Pl. 41: 2652-2655), 34, 35 – design class 9E (Tufnell 1984: Pl. 40: 2605), 37 – design class 9C3 (Tufnell 1984: Pl. 37: 2541-2560).

²⁰⁶ Brunton 1930: Pl. 19: Nos. 15, 36 – design class 9B (Tufnell 1984: Pl. 36). Nos. 37-39 – design class 9F (Tufnell 1984: Pl. 41: 2652-2655). No. 40 – design class 10A1c (Tufnell 1984: Pl. 42: 2710-2719). Nos. 41, 42 – design class 10A2c (Tufnell 1984: Pl. 44: 2763-2768). Nos. 45, 46 – design class 9C2 (Tufnell 1984: Pl. 37: 2530-2540). Nos. 47-49 – design class 10D2 (Tufnell 1984: Pl. 48: 2843-2870). No. 67 – design class 10Bb (Tufnell 1984: Pl. 45: 2786-2788).

(Bourriau personal communication).²⁰⁷ Fourteen scarabs were found in the cemetery (Brunton 1948: Pl. 43), two of them display Canaanite designs.²⁰⁸

§IIb 2d. Hu

Cemetery Y at Hu, dated by Petrie between the 12th and 18th Dynasties (Petrie 1901: 50-53), yielded ten scarabs dating from the Middle Kingdom and the Second Intermediate Period (Petrie 1901: Pl. 41: 7-16).²⁰⁹ Two of these scarabs – No. 7 bearing the prenomen of Senwosret I, and No. 9 bearing the prenomen of Amenemhat III – come from tombs 428 and 426, respectively, which are dated by Bourriau (personal communication)²¹⁰ to the late Middle Kingdom, between the late 12th and early 13th Dynasties. The late Middle Kingdom date of scarab No. 9 is discussed above (§IB 1). A similar date for No. 7, a gold-plated amethyst scarab, is indicated by the late Middle Kingdom type scroll border (above, §IA 7b3), and by the material (Bourriau 1988: 152, No. 168).²¹¹ As at the other northern Upper Egyptian sites (above), the pottery from the other tombs at cemetery Y that yielded pre- New Kingdom scarabs displays both early and late Second Intermediate Period forms and it is not possible to attribute the scarabs to particular phases of the period (Bourriau personal communication). Only one scarab from this cemetery displays distinctive Canaanite characteristics (Petrie 1901: Pl. 41: 16).²¹²

§IIb 3. Southern Upper Egypt

§IIb 3a. Esna

Southern Upper Egypt extends between Thebes and Biga island south of Aswan (Baines and Málek 1980: 70-71). The only published group of Second Intermediate Period scarabs from this region comes from the cemetery at Esna (Downes 1974: 9-10, 60-66), which was excavated by Garstang in 1905 and 1906 and published by Downes in 1974 based on the old excavation records. Downes (1974: VIII-XII) notes the inadequacy of the incomplete excavation records, the fact that many of the objects were dispersed and are now lost, and that a significant part of the pottery from the cemetery was lost when the Liverpool city museum was destroyed in 1941. She further notes the massive plundering of the cemetery, the re-use of tombs for successive burials, and the almost complete loss of stratigraphy because of flood damage. As a result of these difficulties it is not possible to determine the archaeological contexts of most scarabs. A further problem concerning the scarabs is that most of them were dispersed, many could not be traced and their publication includes only drawings of the base designs made at the time of the excavations (Downes 1974: 56). In addition all these difficulties, Downes states (1974: 56) that late Middle Kingdom, Second Intermediate Period, and New Kingdom scarabs were often found together and there is no possibility of establishing which scarabs are intrusive and which are heirlooms. This mixture is clearly seen in the plates presented in the publication, where the scarabs are displayed according to the tombs in which they were found (Downes 1974: 60-66).

The material from the excavated tombs at Esna indicates the use of the cemetery from the Middle Kingdom through the Third Intermediate Period (Downes 1974: 3-24), but most of the pottery recorded and traced belongs to the late Middle Kingdom and the Second Intermediate Period (Downes 1974: 25). The dating of the tombs is based on find groups associated with them in the excavation notes. An examination of the scarabs confirms, however, Downes's observation of the common reuse of the Esna tombs. This is clearly seen in the case of tombs 58, 129, 140, 215, 216, 223, 263, 340 dated by their find groups to the Middle Kingdom (Downes 1974: 3, 120), but including Second Intermediate Period and New Kingdom scarabs (Downes 1974: 60, 62, 64, 66). Heirloom scarabs are also attested, as in the case of tombs 114, 198, 234, 242 dated by their find groups to the Second Intermediate Period and early 18th Dynasty (Downes 1974: 120-26), but including early and late Middle Kingdom scarabs (Downes 1974: 60-63).²¹³

²⁰⁷ Discussions held at Cambridge, UK, in November 2001.

²⁰⁸ Brunton 1948: Pl. 43, No. 25 – design class 9C2 (Tufnell 1984: Pl. 37: 2531-2532), No. 32 – design class 6C1 (Tufnell 1984: Pl. 26).

²⁰⁹ The scarabs depicted in Petrie 1901: Pl. 41: 17-25 date exclusively from the New Kingdom.

²¹⁰ Discussions held at Cambridge, UK, in November 2001.

²¹¹ Amethyst scarabs found in Middle Bronze sites in Palestine (Tufnell 1984: 39; Keel 1995a: 142-43) are identical to those found in Egypt (Ward 1992b: 739) and most probably constitute Egyptian Middle Kingdom imported heirlooms. Isolated examples were later engraved in Palestine (e.g. Tufnell 1984: Fig. 15: 2, 7, 9, 12).

²¹² The scarab displays a variation of the *h3tp-n-r^c* formula (Ben-Tor 1997: 175, and Fig. 6).

²¹³ Only one royal-name Second Intermediate Period scarab and one private-names scarab of the same period were found in the cemetery; neither originated in a Second Intermediate Period tomb. The royal-name scarab, bearing the prenomen *m3^c-ib-r^c* (below, § IIB 1), was found in tomb 333 (Downes 1974: 65) dated to the early 18th Dynasty (Downes 1974: 125). The private-name scarab, bearing the name and title of the treasurer *h3r* (Martin 1971: 78-85; Ryholt 1997: 59-61, 101), was found in tomb 215 (Downes 1974: 62) dated to the Middle Kingdom (Downes 1974: 124).

Twenty-six of the tombs dated by Downes to the Second Intermediate Period yielded scarabs that were traced, or of which there is a drawing in the excavation notes.²¹⁴ Five of these tombs include exclusively New Kingdom or later scarabs,²¹⁵ and 11 include New Kingdom scarabs mixed with earlier scarabs – mainly Second Intermediate Period scarabs and a few late Middle Kingdom heirlooms.²¹⁶ The large number of New Kingdom scarabs in Second Intermediate Period tombs at Esna probably reflects the continuation of use of these tombs or their re-use in later periods. The possibility of these scarabs being "intrusive", as suggested by Downes (1974: 56), is highly unlikely considering the rare occurrence of intrusive scarabs in earlier contexts (Keel 1995a: 262). Ninety-six scarabs were found in tombs attributed to the Second Intermediate Period tombs at Esna,²¹⁷ nine of them displaying Canaanite characteristics.²¹⁸

§IIb 4. Scarabs and sealings from Second Intermediate Period contexts in Nubia

The large number of scarabs from Second Intermediate Period contexts in Nubia is significant considering the fact that this region was free of Egyptian occupation during this period, when both Upper and Lower Nubia were part of the Kingdom of Kush (Trigger 1976: 82-102; Smith 1995a: 81-136; Bourriau 2000:206-210). The capital of the Kushite kingdom was at Kerma, which is situated on the east bank of the Nile in the Dongola Reach south of the third cataract, dominating the river and overland routes linking central Africa to Egypt (Kendall 1997: 27-31). The name of the capital is used for defining the Kushite culture and distinguishing it from other contemporary Nubian cultures like the C-group and Pan-grave (Lacovara 1997: 72-77). As in the case of Egypt, scarabs of this period were found in Nubia mainly in cemeteries, occurring in similar numbers in Egyptian and Nubian cemeteries. They were found in Egyptian and Nubian cemeteries associated with the forts in Lower Nubia (Randall-MacIver and Woolley 1911: Pls. 56-59, 89; Dunham and Janssen 1960: Pls. 121-23; Vercoutter et al. 1976: 275-82; Smith 1995a: 107-136), in C-Group, Pan-grave and Kerma cemeteries in Lower Nubia (Säve-Söderbergh 1989: 97-102, Pls. 41-45), and in Kerma cemeteries in Upper Nubia (Reisner 1923: 70-88, Pls. 40-42; Vila 1987: 225-45, Pls. 5-8; Gratien 1986: 377-79), indicating commercial contacts with Egypt and Egyptian cultural influence in Nubia during this period.

Commercial contacts between Egypt and Nubia during the Middle Kingdom and the Second Intermediate Period are attested in both regions (Bourriau 1991b: 129-35). The use of scarabs as funerary amulets in the Nubian cemeteries was, however, more likely to be inspired by the Egyptian occupants of the forts in Lower Nubia, who settled there during the late Middle Kingdom (Smith 1995a: 51-75). This is indicated by the almost complete absence of scarabs in Nubian cemeteries dating from the Middle Kingdom, although commercial contacts between Egypt and Nubia are well attested during this period (Bourriau 1991b: 129-30). The use of scarabs in Nubian cemeteries is attested mainly in the Second Intermediate Period when cultural interaction between the Egyptian expatriates in the forts and the indigenous Nubian population is indicated in the archaeological evidence, unlike the situation during the Middle Kingdom (below).

Evidence for the use of scarabs in Nubian tombs prior to the Second Intermediate Period is extremely rare, and consists of isolated examples from Kerma (below). The only exception is a group of scarabs from the early phase of the Kerma cemetery at Ukma West represented by circular and oval tombs defined by the excavator as "U-type" (Vila 1987: 257-65). Vila dates the early cemetery at Ukma West between the late Middle Kerma and early Classic Kerma periods (Vila 1987: 258), coinciding with the 13th Dynasty and the beginning of the Second Intermediate Period (Vila 1987: 258; Bourriau 1991b: 129; Lacovara 1997: 70).²¹⁹ The evidence from the Ukma cemetery attests to the use of scarabs by Kerma people at the northern end of the Kerma cultural sphere²²⁰ already towards the end of the Middle Kingdom (Andreu in Vila 1987: 244-45). The occurrence of scarabs in the early cemetery at Ukma argues for some cultural interaction with the Egyptians settlers at the Lower Nubian forts in the final phase of the Middle Kingdom. This is supported by evidence from Askut indicating limited cultural interaction with Kerma

²¹⁴ Tombs 27, 99, 103, 113-14, 141, 154, 180-81, 188, 190, 198, 221, 238, 242, 246-48, 266, 268, 318, 324-25, 329-31 (Downes 1974: 9-10, 116-32).

²¹⁵ Tombs 99, 103, 188, 246, 324 (Downes 1974: 60-61, 63, 65).

²¹⁶ Tombs 154, 190, 198, 221, 242, 245, 247, 248, 268, 318, 331.

²¹⁷ As noted above, these scarabs include Middle Kingdom and New Kingdom examples.

²¹⁸ Downes 1974: 60-65: Tomb 154, No. 2 – design class 10A1b (Tufnell 1984: Pl. 42), Tomb 190, No. 1 – design class 9B (Tufnell 1984: Pl. 36), Tomb 198, No. 4 – design class 9B (Tufnell 1984: Pl. 36), Tomb 221, No. 2 – design classes 3E1 (Tufnell 1984: Pl. 19), No. 6 – design class 3C (Tufnell 1984: Pl. 16), Tomb 238, No. 1 – design class 3E1 (Tufnell 1984: Pl. 19), Tomb 242, No. 3 – design class 10A2f (Tufnell 1984: Pl. 44), Tomb 325, No. 1 – design class 9E (Tufnell 1984: Pl. 40), No. 4 – design class 10D2 (Tufnell 1984: Pl. 48).

²¹⁹ Of the 75 scarabs found in the Ukma cemetery (Andreu in Vila 1987: 225-45), the 45 examples from U-type tombs constitute exclusively late Middle Kingdom Egyptian scarabs (see also Andreu in Vila 1987: 244-45).

²²⁰ For the location of Ukma in northern Upper Nubia see Baines and Málek 1980: 186.

people towards the end of the Middle Kingdom (Smith 1995a: 79). Smith argues (1995a: 79) that the types of Kerma vessels found in late Middle Kingdom contexts at Askut indicate relations with a settled group, probably a small trading colony, rather than long-distant trade with the city of Kerma. This conclusion is supported by the almost complete absence of scarabs in Middle Kingdom contexts at Kerma.

It is interesting to note the complete absence of scarabs in C-Group cemeteries during the Middle Kingdom though the settlement distribution of this ethnic group was in the Lower Nubian region occupied by the Egyptians at that time.²²¹ The absence of scarabs in C-Group cemeteries during the Middle Kingdom confirms the archaeological evidence attesting to the lack of Egyptian cultural interaction with this population during this period (Trigger 1976: 77-81; Säve-Söderbergh 1989: 9; Smith 1995a: 79-80). The boundary separating the C-group and Kerma populations during the Middle Kingdom was in the region of Semna where Senwosret III established the border of the Egyptian occupation in Lower Nubia (Trigger 1976: 95; Säve-Söderbergh 1989: 7).²²² This situation changed when the central administration in Egypt collapsed at the end of the Middle Kingdom and all of Nubia became Kushite territory.²²³ Smith notes a substantial increase in native Nubian pottery at Askut, from ca. 1 to 2% Kerma pottery in late Middle Kingdom occupation levels (Smith 1995a: 79) to ca. 20% of Nubian pottery constituting Kerma, C-Group, and Pan-grave²²⁴ types in Second Intermediate Period levels (Smith 1995a: 102-106). Smith also notes the presence of Nubian artifacts in Second Intermediate Period occupation levels at the site, which suggest an increased interaction between the Egyptian expatriates still constituting the dominant ethnic element at the site and the Kerma, C-Group and Pan-grave populations. These finds reflect Askut's increased dependence on local resources and the new status of the site as a settlement serving the King of Kush (Smith 1995a: 104).

Smith (1995a: 81-136) presents very convincing evidence for the continued occupation of the forts at Askut, Buhen, Mirgissa, and Semna during the Second Intermediate Period by the Egyptians who occupied them in the late Middle Kingdom (See also Bourriau 1991b: 129-35; 1999: 47). The evidence strongly argues for the continuation of large Egyptian communities in the forts who served the king of Kerma throughout the Second Intermediate Period. The limited presence of Kerma people in the forts during the Second Intermediate Period suggests that Kerma hegemony was established by small groups of representatives of the Kushite king in cooperation with the expatriate Egyptians, whose experience was used for the benefit of Kerma (Smith 1995a: 135). This conclusion is supported by the small number of Kerma cemeteries in Lower Nubia during the Second Intermediate Period, which indicates according to Smith (1995a: 103) a trade "diaspora" rather than a full-scale military occupation. It is also supported by the absence of Kerma pottery in C-Group settlements during this period, indicating a rather loose control of the Kushite king over Lower Nubia (Trigger 1976: 97; Säve-Söderbergh 1989: 10). Moreover, the overall cultural assemblage at Askut is overwhelmingly Egyptian, and a similar situation is indicated at Buhen, Mirgissa, and Semna (Smith 1995a: 134-36).

The C-Group and Pan-grave pottery first attested at Askut during this period indicates more open contacts with these groups compared with the situation in the Middle Kingdom (Smith 1995a: 103-104). It is argued here that these contacts generated the use of scarabs in the cemeteries of these Nubian populations. Trigger notes (1976: 97) the unprecedented prosperity of the C-Group during the Second Intermediate Period, the considerable increase in their population and the prevalence of Egyptian trade goods among their material remains. He further states (1976: 98) that the increasing prosperity of the C-Group encouraged their Egyptianization, which is particularly noted among the more prosperous elements, and suggests that this process resulted from the increasing Egyptian interaction with the Nubian population during this period. This situation differs significantly from the situation during the Middle Kingdom, when the Egyptians controlled the Nubian trade and kept their distance from the indigenous population. Trigger also notes (1976: 98) Kerma and Pan-grave influences on the C-Group material culture, which are first attested in the Second Intermediate Period (see also Säve-Söderbergh 1989: 18). These cultural contacts between the northern and southern indigenous Nubian populations began only after the Egyptians lost control of Lower Nubia and the physical border they created between these populations no longer existed (Trigger 1976: 98). As noted above, sealings from Kerma, attesting to the use of scarabs as administrative seals during this period, reflect adaptation of an Egyptian custom inspired by the Egyptian forts in Lower Nubia. This practice is, however, attested only at Kerma, the seat of the central administration of the Kushite kingdom.

²²¹ For the C-Group culture see Säve-Söderbergh 1989: 6-14.

²²² Whether an already existing ethnic frontier near Semna made Senwosret III establish his southern border in this region, or whether the Egyptian border played part in this cultural differentiation is not entirely clear (Trigger 1976: 95).

²²³ The small amount of Kerma vessels in late Middle Kingdom contexts at Askut, and the scarabs found in the early cemetery at Ukma West may suggest that the Egyptian frontier at Semna softened towards the end of the Middle Kingdom occupation of Lower Nubia, as suggested by Smith (1995a: 79).

²²⁴ For the Pan-grave culture see Bourriau 1981; Lacovara 1997: 72-75; Säve-Söderbergh 1989: 15-19.

The distinction between late Middle Kingdom and Second Intermediate Period contexts in Nubia is based mainly on imported Egyptian pottery and its association with local Nubian pottery (Bourriau 1991b: 129-35; Smith 1995a: 51-136). The sequence and chronology of Kerma and C-Group pottery established by Gratien (1978; 1985; 1986) and Bietak (1968; 1987), and the sequence and chronology of Pan-grave cemeteries in Egypt established by Bourriau (1981) are now largely accepted (Lacovara 1987; 1997; Säve-Söderbergh 1989: 6-22; Bourriau 1991b; Kendall 1997: 19-44). As in the case of Egypt, ceramic assemblages in Nubia do not mark the point of transition from the Middle Kingdom to the Second Intermediate Period, although it was suggested until quite recently that types of imported Egyptian pottery in Nubia offer helpful information with regard to this issue. In a study of Egyptian pottery from Middle Kingdom and Second Intermediate Period contexts in Nubia Bourriau (1991b: 129-31) argues for a change in trade patterns between Egypt and Nubia, which took place in the advanced 13th Dynasty. Egyptian pottery from Middle Kingdom contexts in Kerma sites and in the Egyptian forts in Lower Nubia includes both Upper and Lower Egyptian forms, indicating extensive trade contacts between Nubia and these two regions during this period (Bourriau 1991b: 129-30). Second Intermediate Period contexts in Nubia, however, yielded exclusively Upper Egyptian pottery types, attesting to continuing trade contacts between Nubia and Upper Egypt, and a hiatus in trade contacts between Nubia and Lower Egypt during this period (Bourriau 1991b: 130-31).

Bourriau attributes the termination of trade contacts between Lower Egypt and Nubia to the disintegrating royal power at *iti-t3wy*, the Middle Kingdom capital located in the el-Lisht-Memphis region, and the subsequent abandonment of this residence in favor of Thebes (1991b: 130). As this development marks the end of the central rule of the Middle Kingdom and the beginning of the Second Intermediate Period, the conclusions presented in Bourriau's study (1991b) provide helpful criteria to distinguish between late Middle Kingdom and Second Intermediate Period contexts in Nubia (see also S. Allen in Ben-Tor et al. 1999: 57). These conclusions have been slightly modified by Bourriau in recent studies (1999: 47-48; 2001: 5-14; 2004: 11-12), which argue that the change in trade patterns occurred somewhat later in the Second Intermediate Period, based on new evidence and on a reexamination of published evidence. In a recent study of Egyptian pottery from graves excavated at Kerma by the University of Geneva under Charles Bonnet (Bourriau 2004), Bourriau notes imported Egyptian pottery from both Upper and Lower Egypt in early Classic Kerma contexts. Based on this evidence she concludes that no slackening of imports from Lower Egypt is attested at this phase at Kerma, though later in the Classic Kerma period imported Egyptian pottery is exclusively from Upper Egypt (2004: 12).²²⁵

Evidence from two graves in cemetery K at Buhen (K44 and K45) presented by Bourriau (1999: 47, and Fig. 1) includes five Tell el-Yehudiyeh vessels of types found at Tell el-Dab'a in mid 15th Dynasty contexts. Bourriau also notes Egyptian pottery from the Memphis/Fayum region in these graves, stating, however, that there is too little of this group and it is too poorly published for independent dating (Bourriau 1999: 47). As cemetery K at Buhen was also used in the late Middle Kingdom (below), it is difficult to determine the original context of these vessels.²²⁶ The presence of Second Intermediate Period Tell el-Yehudiyeh ware in cemetery K does not necessarily indicate the continuation of trade contacts with the Memphis/Fayum region. Tell el-Yehudiyeh vessels, royal-name scarabs of Hyksos kings, and Canaanite Middle Bronze scarabs are well attested in Second Intermediate Period contexts in Nubia. These objects, which were in wide circulation in Egypt throughout the Second Intermediate Period may have arrived indirectly through trade with Upper Egypt, or directly from Avaris via the Western Desert oases (Bourriau 1991b: 130; 2000: 201).

In a recent study of late Middle Kingdom and Second Intermediate Period burial customs Bourriau presents the results of her analysis of intact burials from Egypt and Nubia, which she assigned to four chronological phases (Bourriau 2001: 3). Based on evidence from burials at Mirgissa and Buhen, Bourriau argues that the change in trade patterns between Egypt and Nubia occurred during her phase 2 (between the late 13th and early 17th Dynasty), that is, in the early Second Intermediate Period (Bourriau 2001: 5-6, 10-12).

As stated above, scarabs were found in Nubia in Second Intermediate Period Egyptian cemeteries and in Nubian cemeteries of all local cultures. The discussion in this chapter includes the largest and most representative groups of scarabs of this period that were found in Nubia.

²²⁵ I thank Janine Bourriau for her generous help and insightful discussions on this subject.

²²⁶ This problem is acknowledged by Bourriau who admits that there is no conclusive evidence to determine the absolute date and original contexts of the few Lower Egyptian pottery vessels in these tombs (discussion held at Cambridge, UK, in November 2001).

§IIb 4a. Scarabs from cemeteries associated with the Egyptian forts in Lower Nubia**§IIb 4a1. Buhen**

Three Egyptian cemeteries were found at Buhen, yielding over 200 scarabs and design amulets (Randall-MacIver and Woolley 1911: 129-221, 233-37; Pls. 56-59, 89, 96; O'Connor 1985: 14-15). The archaeological evidence from the cemeteries indicates continuity in the Egyptian occupation of the site from the late Middle Kingdom through the New Kingdom, confirming Smith's reconstruction of the history of the site that suggests a continuing occupation by a substantial community of Egyptians (Smith 1995a: 123-26). The earliest burials were found in cemetery K, which is located in the outer fort and dates mainly from the 13th Dynasty and the Second Intermediate Period.²²⁷ Cemeteries H and J are located outside the fort area and include mainly Second Intermediate Period and New Kingdom material, cemetery J being largely New Kingdom in its archaeological character (O'Connor 1985: 15; Smith 1995a: 124-26). The publication of the scarabs from these cemeteries does not include illustrations of all examples, and presents only pictures of the base, mainly of scarabs from cemeteries J and H, and tombs 1-7 of cemetery K²²⁸ (Randall-MacIver and Woolley 1911: Pls. 56-59, 96). Most scarabs from cemetery K are unpublished except for twelve examples presented in the report as 12th Dynasty scarabs and design amulets (Randall-MacIver and Woolley 1911: Pl. 89). The 12th Dynasty date suggested by the excavators for cemetery K (Randall-MacIver and Woolley 1911: 185-91) was disproved after a reexamination of the tombs' contents that indicate a date between the 13th Dynasty and the Second Intermediate Period (O'Connor 1985: 15; Smith 1995a: 66-67, 123-26). A similar chronological range is attested in Egyptian cemeteries associated with other forts in Lower Nubia, confirming the suggested shift in the garrison system of the forts from rotating military units to permanent settlers at the end of the 12th Dynasty (Smith 1976: 67-9; Bourriau 1991b: 130; 2000: 207; Smith 1995a: 51-75).

O'Connor notes (1985: 15) a significant representation of scarabs displaying distinctive late Middle Kingdom (13th Dynasty) features in cemetery K (graves 8-45). Five of the twelve published scarabs from these graves display late Middle Kingdom designs (Randall-MacIver and Woolley 1911: Pl. 89: 10759, 10764, 10782, 10847, 10875), and the remaining seven are of Second Intermediate Period types: a ram design amulet (Randall-MacIver and Woolley 1911: Pl. 89: 10874),²²⁹ and six scarabs (Randall-MacIver and Woolley 1911: Pl. 89: 10793, 10797, 10846, 10852, 10895, 10860), four of them displaying distinctive Canaanite designs.²³⁰

Most scarabs from cemeteries H, J, and K 1-7 (Randall-MacIver and Woolley 1911: Pls. 56-59, 96) are of the New Kingdom, mixed with some Second Intermediate Period and late Middle Kingdom examples.²³¹ The majority of the published Second Intermediate Period scarabs from cemeteries H and J at Buhen come from New Kingdom contexts,²³² indicating that as in Egypt, Second Intermediate Period scarabs occur in 18th Dynasty contexts in Nubia.²³³ Only fifteen of the published scarabs from cemeteries H and J display characteristics indicating a Second Intermediate Period date (Randall-MacIver and Woolley 1911: Pl. 56: 10010, 10018, 10028, 10030, 10034, 10041, 10043, 10044, Pl. 57: 10065, 10066, 10072, 10083, 10093, Pl. 58: 10152, Pl. 59: 10178), eight of them displaying Canaanite designs.²³⁴

Smith states (1995a: 124) that the overall distribution of graves in the Buhen cemeteries shows a solid block of Second Intermediate Period burials, with roughly equal numbers showing some overlap with the Middle Kingdom and New Kingdom. Supporting evidence is provided by funerary stela, of which a third of the datable examples can be securely dated to the Second Intermediate Period. Smith stresses the evidence for overlap in the cemeteries and for their continuous use from the late Middle Kingdom through the New Kingdom, which argue for a continuing occupation by a substantial community of Egyptians (Smith 1995a: 125-26). The published scarabs unfortu-

²²⁷ Except for 7 graves (K1-7), which do not belong to it as they lie at the southeastern corner of cemetery J with which they are contemporary. These graves were given the letter K before cemetery K was discovered (Randall-MacIver and Woolley 1911: 185; O'Connor 1985: 15).

²²⁸ See previous note.

²²⁹ See Keel 1995a: 75, § 173.

²³⁰ Randall-MacIver and Woolley 1911: Pl. 89: 10793 (design class 3E5 – Tufnell 1984: Pl. 20), 10797 (design class 10C2b – Tufnell 1984: Pl. 47), 10846 (design class 9F – Tufnell 1984: Pl. 41), 10859 (design class 10A2 – Tufnell 1984: Pl. 44).

²³¹ For the late Middle Kingdom scarabs see Randall-MacIver and Woolley 1911: Pl. 56: 10012 (Martin 1971, No. 1166), 10019, 10026-10027, Pl. 57: 10064, Pl. 58: 10116 (Martin 1971, No. 547), 10130, 10132, Pl. 59: 10194-10195, Pl. 96: 10742 (Martin 1971, No. 517), 10743.

²³² See Randall-MacIver and Woolley 1911: Pl. 56: 10010, 10018, 10028, 10030, 10034, 10041, 10043, 10044, Pl. 57: 10083, 10093, Pl. 58: 10152, Pl. 59: 10178.

²³³ The excavators note the 18th Dynasty date of the majority of the tomb contents of cemeteries H and J (Randall-MacIver and Woolley 1911: 129).

²³⁴ Randall-MacIver and Woolley 1911: Pl. 56: 10018 – design class 10A1b (Tufnell 1984: Pl. 42), 10028 – design class 3A3 (Tufnell 1984: Pl. 8b: 1373, 1399), 10043 – design class 10A2f (Tufnell 1984: Pl. 44), 10044 – design class 9F (Tufnell 1984: Pl. 41), Pl. 57: 10065 – design class 10A1b (Tufnell 1984: Pl. 42), 10072 – design class 9B (Tufnell 1984: Pl. 36), 10093 – design class 10A1b (Tufnell 1984: Pl. 42), Pl. 58: 10152 – design class 10A2b (Tufnell 1984: Pl. 44).

nately do not include those from cemetery K, where Second Intermediate Period scarabs were found in contemporaneous contexts (O'Connor 1985: 15). The relatively small number of Second Intermediate Period scarabs in cemeteries H and J, and the occurrence of most examples in New Kingdom contexts may be explained by the continuous use of these cemeteries throughout the New Kingdom. The excavators' observation that the majority of the tomb contents in cemeteries H and J belong to the 18th Dynasty (Randall-MacIver and Woolley 1911: 129) is corroborated by the scarabs found in these cemeteries. The excavators also note the plundering and reuse of the tombs during the Romano-Nubian period, particularly in cemetery H (Randall-MacIver and Woolley 1911: 129, 135), which may account for the small number of Second Intermediate Period scarabs from this cemetery.

§IIb 4a2. Mirgissa

As in the case of Buhen, the three major cemeteries associated with the fort at Mirgissa argue for a continuous settlement of Egyptians from the late Middle Kingdom through the New Kingdom (Vercoutter 1976: 269-303; Smith 1995a: 67-69, 126-32). The earliest cemetery, Cemetery MX-TC was dated on the basis of the pottery assemblages to the late 12th Dynasty and early 13th Dynasty (Vercoutter 1976: 272; Smith 1995a: 67-69), indicating its use mainly in the late Middle Kingdom (Smith 1995a: 126). The second cemetery to develop, the large Cemetery MX, includes some late Middle Kingdom burials, but the majority of the tombs date from the Second Intermediate Period (Vercoutter 1976: 271; Smith 1995a: 128). The third cemetery, MX-TD, was used only in the first half of the 18th Dynasty (Vercoutter 1975: 475-76; Smith 1995a: 126-32). Some mixed burials in cemetery MX indicate overlapping between the late Middle Kingdom and Second Intermediate Period (Smith 1995a: 129).

Late Second Intermediate Period material was also found in cemetery M-Fe – a small cemetery within the outer enclosure of the fort (Vercoutter 1975: 291-333; 1976: 273). A Second Intermediate Period Kerma cemetery (cemetery M-III) attests to the presence of Kerma people in the fort during this period (Vercoutter 1970: 297-303; Smith 1995a: 130), and isolated Kerma burials were also found in the Egyptian cemetery MX (Vercoutter 1970: 225; Smith 1995a: 131). The Kerma presence reflected in the Mirgissa cemeteries is considerably smaller than that of the Egyptians, arguing for a small community of Kermans among a substantial Egyptian population at the site during the Second Intermediate Period (Vercoutter 1970: 302-303; Smith 1995a: 132, 135).

The majority of the scarabs from the Mirgissa cemeteries come from Second Intermediate Period burials. Only one scarab was found in the late Middle Kingdom cemetery MX-TC (Vercoutter 1975: 235, Fig. 4: 13 = 1976: 276-77, Fig. 6: 19),²³⁵ and six cowroids and plaques come from the early 18th Dynasty cemetery MX-TD (Vercoutter 1975: 474-76). Thirty-nine scarabs were found in the large Second Intermediate Period cemetery MX (Vercoutter 1975: 218; 1976: 275-77). These include six examples displaying late Middle Kingdom characteristics (Vercoutter 1976: 276, Fig. 5: 3, 5, 6, Fig. 6: 1, 5, 10),²³⁶ one *rdi-r^c* type scarab (Vercoutter 1976: 276, Fig. 5: 12), and three scarabs displaying New Kingdom characteristics (Vercoutter 1976: 276, Fig. 5: 4, 8, Fig. 6: 13).²³⁷ The scarabs from cemetery MX also include one royal-name scarab bearing the nomen of King Sheshi (Vercoutter 1976: 276, Fig. 6: 3) – one of the foreign rulers at Avaris (below, §IIB 1), and seven scarabs displaying Canaanite characteristics.²³⁸ Cemetery M-Fe yielded fourteen scarabs, six from tomb 14 and eight from tomb 33 (Vercoutter 1975: 306, 321, Figs. 8, 16; 1976: 277, Fig. 7). This cemetery was dated to the last phase of the Second Intermediate Period and the beginning of the 18th Dynasty before the Egyptian reoccupation of the site (Vercoutter 1975: 333; 1976: 275). The scarabs confirm this chronological range: those from tomb 14 display Second Intermediate Period char-

²³⁵ The almost complete absence of scarabs in the late Middle Kingdom cemetery at Mirgissa is surprising considering the late Middle Kingdom sealings found at the site (Dunham 1967: Figs. 9-10; Gratien 2001), and is probably the result of plundering (Vercoutter 1976: 269-72).

²³⁶ The scarab from tomb 124 (Vercoutter 1975: 178, Fig. 71), and two scarabs from tomb 78 (Vercoutter 1975: 86, Fig. 26: 2, 3) were found with late Middle Kingdom pottery indicating the late Middle Kingdom date of these tombs. A scarab bearing a scene depicting a smiting king was found in tomb 130, with late Middle Kingdom pottery (Vercoutter 1975: 190, Fig. 79), which indicates a similar date for the scarab. The published photographs of this scarab in the reports (Vercoutter 1975: 190, Fig. 79: 11; 1976: 276, Fig. 6: 12) are not clear enough to describe the scene nor the back and head of the scarab. However, the scene resembles the late Middle Kingdom scene depicting the king raising a mace in one hand and holding a lotus flower in the other (above, §IA 10), thus supporting the late Middle Kingdom date suggested by the ceramic assemblage associated with the scarab.

²³⁷ Two of them, and another scarab of which only the back is published, were found in tomb 105 (Vercoutter 1975: 125, Fig. 43: 5, 12, 17) with 18th Dynasty pottery. The scarab from tomb 86 (Vercoutter 1975: 97, Fig. 30: 7) was also found with 18th Dynasty pottery. I thank Dorothea Arnold for her generous help with the pottery of the Mirgissa tombs.

²³⁸ Vercoutter 1976: 276, Fig. 5: 2, Fig. 6: 2 – design class 10D2 (Tufnell 1984: Pl. 48), 7 – design class 9D (Tufnell 1984: Pl. 39), 8 – design class 3C (Tufnell 1984: Pl. 16), 9 – design class 9B (Tufnell 1984: Pl. 36), 14 – Design class 10A 2f (Tufnell 1984: Pl. 44), 16 – Design class 9B (Tufnell 1984: Pl. 36).

acteristics, while those from tomb 33 display mainly early 18th Dynasty characteristics.²³⁹ Only one of the scarabs from tomb 14 displays Canaanite characteristics.²⁴⁰

The Kerma Cemetery M III yielded eight scarabs and seven design amulets from tomb KT 2 (Vercoutter 1970: 235-36, Pl. 26: 1-15), and one scarab from tomb KT 21 (Vercoutter et al. 1970: 276, Pl. 26: 28). The pottery from tomb KT 2 (Vercoutter 1970: 234, Fig. 9) was examined by Dorothea Arnold at my request²⁴¹ and dated between the last phase of the Second Intermediate Period and early 18th Dynasty. This tomb revealed a mirror (Vercoutter 1970: 232, Fig. 7: d), which has its closest parallels in tomb K III at Kerma (Lilyquist 1979b: 46, Figs. 82-86) dating from the final Classic Kerma phase (Lacovara 1997: 78-80). The scarabs include one late Middle Kingdom private-name scarab (Vercoutter 1970: Pl. 26: 1), and one early 18th Dynasty scarab (Vercoutter 1970: Pl. 26: 9).²⁴² None of the scarabs found in this tomb display Canaanite characteristics. The scarab from tomb KT 21 bears a design that strongly argues for an early Middle Kingdom date (above, §IA 6b3). Tombs KT 21 and KT 22, although situated near the Kerma cemetery (Vercoutter 1970: 225-26) display Egyptian and not Kerma burial customs and they are not part of the Kerma cemetery (Vercoutter 1970: 276-77). The pottery found in these tombs dates according to Dorothea Arnold (personal communication) from the early 12th Dynasty, having good parallels in the pyramid complex of Senwosret I at el-Lisht.²⁴³ The early Middle Kingdom scarab is therefore contemporary with the burial. These early burials are not associated with a contemporaneous Egyptian cemetery. Moreover, they are unusual in the Nubian forts, where the earliest Egyptian cemeteries date from the late Middle Kingdom, and most probably represent isolated early burials of Egyptians who died during their mission at the fort and for some reason were interred at the site and not in Egypt.

§IIb 4a3. Semna

Five cemeteries were found in the vicinity of the Semna fort, only one of them – Cemetery S 500 – including late Middle Kingdom and Second Intermediate Period burials (Dunham and Janssen 1960: 74-111). The burials examined in Cemetery S 500 date from the late Middle Kingdom through the New Kingdom, displaying Egyptian burial customs. Of the one hundred and three tombs examined, twenty-four are rock-cut tombs, most of them dating originally from the Middle Kingdom or the Second Intermediate Period but reused in the New Kingdom when most of the original burials were plundered (Dunham and Janssen 1960: 15). The remaining seventy-nine graves, ranging from well-cut rectangular pits to oval baby graves, date mainly from the New Kingdom (Dunham and Janssen 1960: 74).

Dunham and Janssen (1960: 14-15) and Smith (1995a: 132-34) note the problematic state of preservation of the Semna fort and the reuse of the early burials in cemetery S 500. However, both the fort and the cemetery yielded objects dating from the Middle Kingdom through the New Kingdom indicating continuous Egyptian presence at the site. Forty-one scarabs and design amulets were found in the Semna fort (Dunham and Janssen 1960, Pls. 120-21). Their original contexts are unknown (Dunham and Janssen 1960: 14), but their dates, ranging from the late Middle Kingdom through the New Kingdom, confirm the evidence indicating the period of Egyptian occupation at the site (Smith 1995a: 132-34). The majority of the scarabs from the fort display New Kingdom designs and features. There are, however, two late Middle Kingdom private-name scarabs (Dunham and Janssen 1960: Pl. 120: 5, 23), eight design scarabs displaying late Middle Kingdom characteristics (Dunham and Janssen 1960: Pl. 120: 2, 16, 19, 20, Pl. 121: 2, 5-7), two small *rdi-r^c* type scarabs (Dunham and Janssen 1960: Pl. 120: 17, 24), and a Second Intermediate Period royal-name scarab bearing the nomen ^c*3mv*, (Dunham and Janssen 1960: Pl. 120: 4) attributed to one of the foreign rulers in the eastern Delta (below, §IIB 1).

Cemetery S 500 yielded over a hundred scarabs and design amulets, the majority of them dating from the New Kingdom. Second Intermediate Period scarabs and a small number of late Middle Kingdom scarabs²⁴⁴ were found in mixed contexts in reused rock-cut tombs S 520, S 521, S 523, S 524, S 548, S 552, S 553 (Dunham and Janssen 1960: 80-97, Pls. 121-123). The photographs of the scarabs in the publication are not always clear, but at least

²³⁹ Vercoutter 1975: 321, Fig. 16: a-h, except for 'e', which is probably a Second Intermediate Period scarab considering its size. The photograph of this scarab is unclear, however, and does not allow us to determine the design on its base. For the early 18th Dynasty date of 'b', 'c', and 'g', see back types in Hornung and Staehelin 1976: Pls. 20-21: 200, 220, 215, 216.

²⁴⁰ Vercoutter 1976: 277, Fig. 7: e, displaying design class 10C2 (Tufnell 1984: Pl. 47).

²⁴¹ In September 2001, for which I express my sincere gratitude.

²⁴² The scarab displays an imitation of the early Middle Kingdom *nbtj* design (above, §IA 3a2). However, the central plant motif and the particular form of the *nbtj* argue against an early Middle Kingdom date (compare Ward 1978a: Pls. 12-13), and the back type strongly argues for an early 18th Dynasty date for this scarab (Hayes 1959: Fig. 102, bottom row 4th from the left; Hornung and Staehelin 1976: Pl. 20: 207, Pl. 21: 219, 221, Pl. 117: D 4, Pl. 127: Va 13).

²⁴³ Arnold 1988: Fig. 72: 27, 141 for the jar in tomb KT 22, and Table 8 for the jar in tomb KT 21.

²⁴⁴ For late Middle Kingdom scarabs see Dunham and Janssen 1960: Pl. 121: 19, 28, Pl. 122: 1, 8, Pl. 123: 1, 13, 14. There is also one *rdi-r^c*-type scarab from tomb S 523 (Dunham and Janssen 1960: Pl. 121: 38).

twenty-seven examples can be attributed to the Second Intermediate Period,²⁴⁵ fifteen of them displaying Canaanite designs.²⁴⁶

§IIb 4a4. Aniba

The site of Aniba, situated between the first and second cataracts (Baines and Málek 1980: 179), contained an Egyptian fort built in the Middle Kingdom and renovated in the New Kingdom, when a large town grew around it (Säve-Söderbergh 1975: 273-74). The Egyptian cemetery associated with the fort (Cemetery S) includes material dating from the late Middle Kingdom through the New Kingdom (Steindorff 1937: 38), most of the 156 excavated tombs in the cemetery dating from the New Kingdom (Steindorff 1937: 152-240; Säve-Söderbergh 1975: 274).²⁴⁷ The contents of many tombs in Cemetery S indicate reuse of Middle Kingdom and Second Intermediate Period tombs in the 18th Dynasty, as well as plundering. Only four tombs contain late Middle Kingdom material,²⁴⁸ and twenty-three tombs contain Second Intermediate Period material. Nineteen of the latter contain also early 18th Dynasty material,²⁴⁹ three contain only Second Intermediate Period material,²⁵⁰ and one contains late Middle Kingdom and early Second Intermediate Period material.²⁵¹ The material found in the cemetery indicates continuous Egyptian presence at the site from the Middle Kingdom through the New Kingdom as in the case of the other Egyptian forts discussed above.

Cemetery S yielded 197 scarabs the majority of them dating from the New Kingdom (Steindorff 1937, Pls. 54-56). Of the six tombs containing only late Middle Kingdom and Second Intermediate Period material,²⁵² only three yielded scarabs: S41 – scarabs 52, 109, SA16 – scarab 185, SA24 – scarab 124 (Steindorff 1937: 102, 106, 109). These four scarabs include one undecorated scarab of green jasper (scarab 185), one Canaanite scarab (scarab 52),²⁵³ one small *rdi-r^c* scarab (scarab 109), and one late Middle Kingdom scarab (scarab 124).²⁵⁴ Twelve of the nineteen tombs containing Second Intermediate Period and 18th Dynasty material yielded scarabs, fifty-four all together.²⁵⁵ These include twenty 18th Dynasty scarabs,²⁵⁶ at least three late Middle Kingdom scarabs,²⁵⁷ and two Canaanite scarabs.²⁵⁸

A significantly larger C-Group cemetery (Cemetery N) was situated about 1 km north of the town and the Egyptian cemetery at Aniba. Out of 961 excavated tombs 348 contained material that allowed their dating – between the 6th Dynasty and the Second Intermediate Period (Steindorff 1935: 126-92; Säve-Söderbergh 1975: 275). Cemetery N yielded, however, a much smaller number of scarabs compared with the Egyptian cemetery S: only twenty-five scarabs and design amulets dating from the First Intermediate Period through the Second Intermediate Period (Steindorff 1935: 58-59, Pl. 31: 1-10, 13-19, 27-32, 35). These include ten First Intermediate Period examples (Steindorff 1935: Pl. 31: 1-10), at least six early Middle Kingdom examples (Steindorff 1935: Pl. 31: 13, 17, 19, 28, 29, 31, and possibly 18), at least two late Middle Kingdom examples (Steindorff 1935: Pl. 31: 14, 16, 20), and only three examples that may be attributed to the Second Intermediate Period or early 18th Dynasty (Steindorff 1935: Pl. 31: 27, 30, 32).

²⁴⁵ See Dunham and Janssen 1960: Pl. 121: 17, 20, 21, 25, 27, 30, 32, Pl. 122: 6, 10-12, 14-19, 44-48, 50, Pl. 123: 2, 4, 7, 9.

²⁴⁶ Dunham and Janssen 1960: Pl. 121: 17 – design class 10A2c (Tufnell 1984: Pl. 44), 25 – design class 9B (Tufnell 1984: Pl. 36), 32 – design class 10B (Tufnell 1984: Pl. 45), Pl. 122: 6, 14, 15 – design class 10A2 (Tufnell 1984: Pl. 44), 17 – design class 6C1 (Tufnell 1984: Pl. 26), 18 – design class 9F (Tufnell 1984: Pl. 41), 19 – design class 3A4 (Tufnell 1984: Pl. 9), 33 – design class 9D (Tufnell 1984: Pl. 39), 44 – design class 1B (Tufnell 1984: Pl. 1: 1007-1011; Schroer 1989: 106, Figs. 017-029), 45 – design class 9D (Tufnell 1984: Pl. 39), 46 – design class 10A1f (Tufnell 1984: Pl. 43), Pl. 123: 4 – design class 10A2c (Tufnell 1984: Pl. 44), 7 – design class 10D2 (Tufnell 1984: Pl. 48).

²⁴⁷ One hundred and eighteen of the tombs are noted as S tombs, and 38 as SA tombs; the latter were excavated by the expedition of the University Museum, Philadelphia (Steindorff 1937: 152-241).

²⁴⁸ Tombs S4, S38, S41, S42 (Steindorff 1937: 156, 173, 174-75).

²⁴⁹ Tombs S2, S4, S16, S26, S32, S43, S49, S69, S81, S85, S86, S87, S117, SA10, SA18, SA26, SA27, SA28, SA29 (Steindorff 1937: 154, 156, 162, 166, 170, 175, 178, 190, 194, 196-97, 208, 216, 222, 227-29).

²⁵⁰ Tombs S110, SA16, SA24 (Steindorff 1937: 206, 221, 226).

²⁵¹ Tomb S41 (Steindorff 1937: 174).

²⁵² Tombs S38, S41, S42, S110, SA16, SA24 (Steindorff 1937: 173-75, 206, 221, 226).

²⁵³ Design class 10C2b (Tufnell 1984: Pl. 47).

²⁵⁴ Steindorff 1937: Pls. 55-56. Scarab 185 is not illustrated, but see Steindorff 1937: 109.

²⁵⁵ Tombs S4 (scarabs 85-90, 133-34, 138-40, 193), S26 (scarabs 102-103, 145, 174), S43 (scarab 175), S49 (scarabs 46, 112), S69 (scarab 73), S117 (scarab 1), SA10 (scarabs 2, 76), SA18 (scarabs 14-15, 41, 60, 67, 79, 137, 158), SA26 (scarabs 16, 125-28, 159, 186), SA27 (scarabs 16, 80, 161, 187), SA28 (scarabs 43, 62, 188), SA29 (scarabs 27, 81, 129-31, 162-65).

²⁵⁶ Scarabs 14, 15, 16, 27, 41, 43, 60, 61, 62, 73, 76, 79, 81, 85, 86, 87, 112, 127, 133, 158.

²⁵⁷ Scarabs 45, 46, 128, and possibly scarabs 1, 88, 102.

²⁵⁸ Scarabs 80, 103.

The Nubian cemetery B is situated east of the Egyptian cemetery S. Only 32 tombs of this cemetery were excavated, yielding a small number of scarabs and design amulets (Steindorff 1935: 196-201, Pl. 31: 11-12, 20-26, 33-34). Cemetery B was dated to the end of the C-Group culture in the last phase of the Second Intermediate Period – early 18th Dynasty (Steindorff 1935: 197), the period defined as "transitional" by Säve-Söderbergh (1989: 10-11).²⁵⁹ The scarabs and design amulets from this cemetery constitute almost exclusively Second Intermediate Period examples,²⁶⁰ and three local Nubian design amulets (Steindorff 1935: Pl. 31: 11-12, 33).

§IIb 4b. Scarabs from Nubian cemeteries in Lower Nubia not associated with the Egyptian forts

The publication of the Scandinavian Joint Expedition in Lower Nubia includes almost eighty Middle Nubian sites²⁶¹ excavated during the salvage campaign in the 1960s, sixty-six of them constituting cemeteries (Säve-Söderbergh 1989: 150-51). Most of these cemeteries are of the C-Group culture, ranging in date between the First Intermediate Period and the early New Kingdom, the majority dating from the Middle Kingdom and the Second Intermediate Period (Säve-Söderbergh 1989: 12). The Scandinavian concession area includes also six Pan-grave cemeteries, a group of Pan-graves near a C-Group cemetery (Säve-Söderbergh 1989: 19), and one Kerma cemetery (Säve-Söderbergh 1989: 22). The sparse Kerma material recorded in the Scandinavian reports dates exclusively from the Second Intermediate Period, confirming the cultural boundary between C-Group and Kerma people at the Second Cataract during the Middle Kingdom (Säve-Söderbergh 1989: 21-22). The single Kerma cemetery and isolated additional graves found by the Scandinavian expedition support the evidence from the Egyptian forts indicating a loose Kerma control in Lower Nubia during the Second Intermediate Period (Säve-Söderbergh 1989: 22; Smith 1995a: 135-36).

Twenty-one Middle Nubian cemeteries in the Scandinavian concession area yielded scarabs and design amulets dating between the First Intermediate Period and the early 18th Dynasty (Säve-Söderbergh 1989: 95-110, Pls. 41-45). The majority of these cemeteries date from the early 18th Dynasty (Säve-Söderbergh 1989: 102-10), and only eight include Second Intermediate Period material.²⁶² The latter constitute three C-Group cemeteries,²⁶³ two Pan-grave cemeteries,²⁶⁴ two mixed C-Group and Pan-grave cemeteries,²⁶⁵ and one cemetery defined merely as Middle Nubian.²⁶⁶ The Second Intermediate Period scarabs in the Scandinavian concession area attest to the use of scarabs by all the indigenous populations during this period. The largest number of scarabs came from the Pan-grave cemetery 170, which yielded twenty-five scarabs (Säve-Söderbergh 1989: 104-106). Site 170 also included one Kerma grave,²⁶⁷ which yielded sixteen of the scarabs found at the site (Säve-Söderbergh 1989: 105-106, Pls. 42-43), two of them displaying Canaanite characteristics.²⁶⁸ The scarabs from Pan-grave tombs at Site 170 include an early Middle Kingdom cowroid (Säve-Söderbergh 1989: Pl. 42: 170/17:1A),²⁶⁹ a late Middle Kingdom private-name scarab (Säve-Söderbergh 1989: Pl. 42: 170/20:3A), a late Middle Kingdom design scarab (Säve-Söderbergh 1989: Pl. 42: 170/25:2), and two Canaanite scarabs.²⁷⁰

Two of the C-Group cemeteries – Sites 179, 184 – did not yield Second Intermediate Period scarabs.²⁷¹ Site 332 yielded two scarabs, one of them displaying Canaanite characteristics.²⁷² Only two First Intermediate Period design-amulets come from the C-Group graves in the mixed C-Group and Pan-grave cemetery at Site 65 (Säve-Söderbergh 1989: Pl. 41: 65/13:1, 65/13:2), and one Second Intermediate Period scarab comes from the Pan-grave inclusion in this cemetery (Säve-Söderbergh 1989: Pl. 41: 65/71:1). The mixed C-Group and Pan-grave cemetery

²⁵⁹ The Egyptian pottery from this cemetery (Steindorff 1935: Pl. 87) was examined by Dorothea Arnold at my request and dated to the early 18th Dynasty.

²⁶⁰ The scarabs presented in Steindorff 1935: Pl. 31: 22-26, 34. Nos. 20 and 21 may be late Middle Kingdom heirlooms.

²⁶¹ The Middle Nubian Period in Lower Nubia is dated between the end of the Old Kingdom and the early 18th Dynasty, ca. 2200-1500 BCE (Säve-Söderbergh 1989: 1-5).

²⁶² Sites 65, 95, 99, 170, 179, 184, 332, 338 (Säve-Söderbergh 1989: 175, 181, 190, 194, 208, 216, 246, 248).

²⁶³ Sites 179, 184, 332.

²⁶⁴ Sites 99, 170.

²⁶⁵ Sites 65, 95.

²⁶⁶ Site 338.

²⁶⁷ Grave 170/37 (Säve-Söderbergh 1989: 194-95).

²⁶⁸ Säve-Söderbergh 1989: Pl. 42: 170/37:10D – Design class 10Bf (Tufnell 1984: Pl. 45); 170/37:10L – Design class 3C (Tufnell 1984: Pl. 16).

²⁶⁹ Displaying design class 3A2 (Ward 1978a: 70, Fig. 15, Pls. 12-13).

²⁷⁰ Säve-Söderbergh 1989: Pl. 42: 170/20:3B – Design class 9C1 (Tufnell 1984: Pl. 37); 170/23:2 – Design class 9B (Tufnell 1984: Pl. 36).

²⁷¹ Two design amulets of the First Intermediate Period and one of the 18th Dynasty were found at Site 179 (Säve-Söderbergh 1989: Pl. 44: 179/15:2 – 18th Dynasty, 179/231:1, 179/231:2 – First Intermediate Period), and two 18th Dynasty scarabs were found at Site 184 (Säve-Söderbergh 1989: Pl. 44: 184/11:1, 184/31:3).

²⁷² Säve-Söderbergh 1989: Pl. 45: 332/46:1, 332/25:1 – Design class 9C3 (Tufnell 1984: Pl. 37).

of Site 95 (Säve-Söderbergh 1989: 181) yielded two Second Intermediate Period scarabs, one of them displaying a Canaanite design.²⁷³ Site 338 defined as Middle Nubian yielded two Second Intermediate Period scarabs, one of them bearing an unclear nomen of one of the Second Intermediate Period foreign kings (below, §IIB 1).²⁷⁴

Second Intermediate Period scarabs were also found in early 18th Dynasty cemeteries within the Scandinavian concession area, most of them in the Fadrus cemetery site 185 (Säve-Söderbergh and Troy 1991: 212-93),²⁷⁵ the early 18th Dynasty date of which was stressed by the excavators (Säve-Söderbergh and Troy 1991: 220-21). Isolate late Middle Kingdom scarabs are also attested at site 185.²⁷⁶

§IIB 4c. Scarabs from Kerma cemeteries south of the second cataract

§IIB 4c1. Ukma

The Kerma cemetery at Ukma West is situated in the northern part of the Kerma populated region south of the second cataract boundary separating the Kerma and C-Group populations in the Middle Kingdom (Vila 1987: 11, Fig. 2). The two hundred and twenty-eight excavated tombs in the cemetery were divided into two main types, which are distinguished chronologically (Vila 1987: 19-35). The early phase of the cemetery is represented by round and oval tombs defined as U-type and dated between the Middle Kerma and early Classic Kerma periods coinciding with the late Middle Kingdom and possibly the beginning of the Second Intermediate Period. The later phase of the cemetery is represented by rectangular tombs defined as K-type and dated to the Classic Kerma period coinciding with the Second Intermediate Period (Vila 1987: 257-65). The early phase of the cemetery is significantly larger, constituting 66.7% of the tombs (Vila 1987: 260). The excavator notes the similar percentage of intact tombs in both phases – 21% of the U-type tombs and 22.4% of the K-type tombs (Vila 1987: 12-14).

Based on the structure and contents of both tomb types, Vila argues that the two phases of the cemetery reflect two distinct populations that differ considerably in the form of tombs, and in their personal offerings, pottery, tools, weapons, dress, and ornaments (Vila 1987: 257). He further notes, however, that the tomb contents indicate continuity as well as cultural kinship, which are manifested in the conformity of the burial customs, attitude and orientation of the bodies, practice of human and animal sacrifices, analogous pottery, and the choice of the same cemetery (Vila 1987: 257). Overlapping is also suggested by the pottery in spite of the different forms occurring in U-type and K-type tombs (Vila 1987: 187-208, 261-62).²⁷⁷ Evidence from other Kerma cemeteries supports continuity between the two phases at Ukma and the chronological proximity of these phases (Vila 1987: 258-61). The similar percentage of intact tombs among both tomb types argues that plundering took place at the same time, after the abandonment of the cemetery and not between the two phases (Vila 1987: 261). Vila concludes that the cemetery was founded by the population interred in U-type tombs sometime between the late 12th and 13th Dynasty, continued with the population interred in K-type tombs in the Second Intermediate Period,²⁷⁸ and ended with the Egyptian military activities in Nubia in the early 18th Dynasty. He suggests that the cemetery was relatively short lived, functioning between ca. 1800-1580 BCE (Vila 1987: 264-65).

The Ukma cemetery yielded 75 scarabs, 45 of them from U-type tombs and 30 from K-type tombs (Andreu in Vila 1987: 225-45, Pls. 5-8). Andreu correctly notes a distinct majority of 13th Dynasty scarabs in U-type tombs and the dominance of Second Intermediate Period scarabs in K-type tombs (in Vila 1987: 245). The scarabs therefore confirm the dates suggested for the two phases of the cemetery, as the U-type tombs yielded exclusively late Middle Kingdom scarabs, while K-type tombs yielded mainly Second Intermediate Period scarabs (Vila 1987: 262-63). Not a single New Kingdom scarab is attested in the cemetery, corroborating Vila's conclusion that it did not continue beyond the Egyptian conquest of Nubia in the early 18th Dynasty.

²⁷³ Säve-Söderbergh 1989: Pl. 41: 95/171:1, 95/25:1 – Design class 9C1 (Tufnell 1984: Pl. 37).

²⁷⁴ Säve-Söderbergh 1989: Pl. 45: 338/1:1. This scarab is presented in the report as displaying illegible signs (Säve-Söderbergh 1989: 101); however, the title *s3-r* at the top and the epithet *di nhl* at the bottom of the central column constituting the inscription are clear enough to suggest a royal name. The so-called Hyksos sides flanking the inscription and the form of the hieroglyphs indicate that the scarab bears the nomen of one of the foreign rulers at Avaris (below, §IIB 1), though no exact parallel is known and it is not possible to identify the king.

²⁷⁵ Säve-Söderbergh and Troy 1991: Pl. 9: 64/4:9, 177/9:1, Pl. 10: 185/8:1, 185/12:1, Pl. 11: 185/72:1, 185/86: 1A, Pl. 12: 185/105:1, Pl. 13: 185/195:7, 185/200:8, Pl. 14: 185/218: 015, 185/248:9, Pl. 15: 185/359:9, Pl. 17: 185/545:11, Pl. 18: 185/690: 1.

²⁷⁶ Säve-Söderbergh and Troy 1991: Pl. 10: 185/20:1, Pl. 11: 185/56:1, Pl. 15: 185/354:11, Pl. 16: 185/400:18, Pl. 17: 185/545:2.

²⁷⁷ In his final analysis of the cemetery Vila proposes that the people interred in U-type tombs continued to use the cemetery after being culturally assimilated with the K population, which since their arrival at the site became the dominant ethnic element (Vila 1987: 264-65).

²⁷⁸ Vila associates the arrival of the population interred in K-type tombs with the rising power of Kerma and its political or administrative interests in the early Second Intermediate Period (Vila 1987: 265).

The thirty scarabs found in K-type tombs at Ukma²⁷⁹ include three late Middle Kingdom scarabs (Vila 1987: Pls. 5-6: 14/11a, 16/8, 55/57), a royal-name scarab bearing the prenomen of one of the foreign rulers at Avaris – *m3^c-ib-r^c* (Vila 1987: Pls. 5-6: 155/3), a Second Intermediate Period private-name scarab (Vila 1987: Pls. 5-6: 56/2), and two small *rdi-r^c* type scarabs.²⁸⁰ Nine of the scarabs from K-type tombs display Canaanite designs.²⁸¹

§IIb 4c2. Saï Island

The large Kerma necropolis at Saï Island includes seven cemeteries representing the entire range of the Kerma culture, between the First Intermediate Period and the early 18th Dynasty (Gratien 1986: 18-21). It was primarily the material from the Saï cemeteries on which the new chronology for the Kerma culture was established (Gratien 1978: 133-223). The extensive plundering of the cemeteries in antiquity and in modern times (Gratien 1986: 19) may account for the mere seventeen scarabs found in this large necropolis, which includes more than two thousand tombs of the Classic Kerma period (Gratien 1986: 19, 377-79). The scarabs were found in tombs associated with cemeteries (SKC) 1, 2, 4, and 6 (Gratien 1986: 377).²⁸² Cemeteries 1 and 6 were dated between the Middle and Classic Kerma periods (Gratien 1986: 19), coinciding with the 13th Dynasty and the beginning of the Second Intermediate Period (Lacovara 1997: 70). Cemetery 2 was dated between the Classic Kerma and Recent Kerma periods (Gratien 1986: 19) coinciding with the Second Intermediate Period and early 18th Dynasty (Lacovara 1997: 70). Cemetery 4 was, however, dated between the Archaic Kerma and early Middle Kerma periods (Gratien 1986: 19), coinciding with the First Intermediate Period and early Middle Kingdom (Lacovara 1997: 70). The three scarabs found in cemetery 4 (Gratien 1986: 132, 136, Fig. 286: IIa, IIIa, IVc) display distinctive late Middle Kingdom designs and features. Gratien, being aware of the difficulty in attributing them to this early period, suggests they originated in a secondary occupation of the cemetery (Gratien 1986: 377). Determining the date of interment of these scarabs in the late Middle Kingdom or the Second Intermediate Period is unfortunately not possible.

The scarabs from cemeteries 1 and 6 display a mixture of late Middle Kingdom and Second Intermediate Period examples, strongly arguing for the continuation of these cemeteries into the early Second Intermediate Period. Of the four scarabs from cemetery 1 (Gratien 1986, Fig. 286: Ia, Ib, IIb, Va), three (Ia, Ib, IIb) come from tomb 46, the only intact tomb in this cemetery (Gratien 1986: 207-11). The back types of scarabs Ib and IIb display characteristics of Mlinar's type III of the early workshop at Tell el-Dab'a. This type is attested between strata G - E/2 at the site, which date between the late Middle Kingdom and early Second Intermediate Period (Mlinar 2004: Fig. 15, below, §IIb 5c). It should also be noted that the name of the god Ptah depicted among other signs on scarab Ib, and the branches depicted next to the Uraei on scarabs Ib and IIb are distinctive Canaanite characteristics (below, §IIIA 1a, § IIIA 3b8).²⁸³ The unclear inscription on scarab Ia is unique and difficult to date, but the scarab's size and back type suggest a likely late Middle Kingdom date. The type of small twin scarabs from tomb 53 (Gratien 1986: 218-21, Fig. 286: Va) is not known before the Second Intermediate Period (Keel 1995a: 61-62). The six scarabs from cemetery 6 (Gratien 1986: Fig. 286: IIc, IId, IIe, IIg, IVb) display late Middle Kingdom characteristics.²⁸⁴

The four scarabs from cemetery 2 (Gratien 1986, Fig. 286: IIh, Ili, IIb, IVa), which could not have been interred prior to the Second Intermediate Period, display two late Middle Kingdom examples (IIb, IVa)²⁸⁵ and two Second Intermediate Period examples (IIh, Ili).²⁸⁶ The occurrence of late Middle Kingdom scarabs in Second Intermediate Period contexts, both in Egypt and in Nubia, has been noted above. Moreover, Gratien notes (1986: 377) that the contexts of some of the scarabs at Saï may be later than their time of production. The evidence from Saï provides further indication for the almost complete absence of scarabs in Nubian cemeteries during the Middle Kingdom.

²⁷⁹ Vila 1987: 225-45: 5/6, 8/3, 8/4a, 8/4b, 9/9, 14/11a, 14/11b, 16/7a, 16/7b, 16/8, 16/13, 16/14, 18/3, 50/1, 52/3, 52/4, 55/4, 55/54, 55/57, 56/2, 88/4, 102/2, 155/3, 189/17, 18/18, 189/20, 189/21, 226/12, 226/13, 226/14.

²⁸⁰ Vila 1987: 227, Pls. 5-6: 16/7a, 16/7b, the first (16/7a) displaying a double scarab back. A *rdi-r^c*-type scarab was also found at Ukma in a U-type tomb (Vila 1987: Pls. 5-6: 146/1).

²⁸¹ Vila 1987: Pls. 5-6: 8/4b (design class 10D2 – Tufnell 1984: Pl. 48), 9/9 (design class 3C – Tufnell 1984: Pl. 16), 16/14 (design class 9F – Tufnell 1984: Pl. 41), 50/1, (design class 9C3 – Tufnell 1984: Pl. 37), 55/4 (design class 9C5 – Tufnell 1984: Pl. 38: 2576), 55/54 (design class 9D – Tufnell 1984: Pl. 39: 2597). Pls. 7-8: 189/17, 189/18 (design class 3C – Tufnell 1984: Pl. 16), 226/12 (design class 10D2 – Tufnell 1984: Pl. 48).

²⁸² For the distribution of the cemeteries at Saï, see Gratien 1986: 18, Fig. 3.

²⁸³ These two examples argue for the initial occurrence of these designs in the early workshop at Tell el-Dab'a (below, §IIb 5c).

²⁸⁴ For the photographs of these scarabs, see Gratien 1986: 229, 238, 257, 262.

²⁸⁵ Gratien 1986: Fig. 286: 300 (IIb), 327 (IVa).

²⁸⁶ Gratien 1986: Fig. 286: 327 (IIh), 298 (Ili).

§IIb 4c3. Kerma

Reisner's excavations at Kerma yielded more than one hundred scarabs and close to one thousand seal impressions representing about a hundred and twenty different scarabs (Reisner 1923: 38-39, 70-88, Pls. 2-3, 40-42, Figs. 168-69; Markowitz 1997: 83). More scarabs and seal impressions were discovered at the site by the Archaeological Mission of the University of Geneva (Gratien 1998), some of the seal impressions published by Gratien (1991: 22, Fig. 1; 2004: Fig. 3, Pls. 3-4).

Reisner acknowledges the Second Intermediate Period date of the seal impressions (1923: 70, 81),²⁸⁷ but dates the scarabs to the 12th and 13th Dynasties (1923: 70) based on his chronology for the Kerma cemetery, which has since been revised (Gratien 1978; Kendall 1997: 19-27, 39-43; Lacovara 1997: 75-80).²⁸⁸ According to the currently accepted chronology for the Kerma culture the contexts of almost all scarabs found at Kerma date from the Second Intermediate Period (Markowitz 1997: 84). Reisner correctly notes the complete absence of 18th Dynasty scarabs at Kerma (1923: 72).

Reisner's discussion of the Kerma scarabs and seal impressions does not take into account the local production of a significant number of seals (about 30%), which were noted by Markowitz (1997: 83) and Gratien (1991: 21; 1998: 19; 2004: 78). The local seal-amulets, which are not scarab shaped, display dome-shaped backs; they are usually made of ivory, bone or clay, and have linear geometric designs, mainly crisscross and incised triangles on their base, and sometimes also on their back (Markowitz 1997: 83; Gratien 1998: 19).²⁸⁹ Local seal-amulets were also used for sealing at Kerma as is indicated by seal impressions found at the site (Reisner 1923, Fig. 168: 1-35; Gratien 2004: Pl. 4). Markowitz states that scarabs first appear at Kerma in Middle Kerma II contexts coinciding with the late Middle Kingdom; noting, however, that only two examples were found (Markowitz 1997: 84).²⁹⁰ Markowitz further notes that only seven imported scarabs are recorded from Classic Kerma I contexts coinciding with the final phase of the Middle Kingdom and the beginning of the Second Intermediate Period (Markowitz 1997: 84). The bulk of the scarabs from Reisner's excavations at Kerma (about 80%) come from Classic Kerma II and Classic Kerma III contexts, coinciding with the Second Intermediate Period (Markowitz 1997: 84).²⁹¹ This distribution is in complete agreement with evidence from other Nubian cemeteries indicating that the use of scarabs by the indigenous Nubian populations is attested mainly in the Second Intermediate Period. The almost complete absence of scarabs in Middle Kingdom contexts at Kerma supports the suggested association between the use of scarabs by the Nubian populations and cultural interaction with Egyptians. Egyptian cultural influence on the rulers of Kerma is indicated both in the city of Kerma and in Kerma dominated regions mainly during the Second Intermediate Period (Trigger 1976: 87; Smith 1995b; Kendall 1997: 50, 62; Gratien 1998: 20).

The scarabs found at Kerma come almost exclusively from burials, while the sealings come mainly from the Western Deffufa K I – the main religious complex in the city, the cemetery chapel K XI, and before the door of the funerary apartment in the great tumulus KX, reflecting administrative activities (Reisner 1923: 81-84; Gratien 1991; 1998: 19; Smith 1995b; Kendall 1997: 46-48, 53-55; Gratien 2004: 77). The designs of the sealings presented in Reisner's publication (1923: Figs. 168-69) as well as his typology (1923: 76-80) show that the seal impressions were made by the same type of scarabs and local seals found in the burials (1923: 76-80). As stated above (§IIb 4c3), the use of scarabs as seals for the central administration at Kerma was most probably inspired by the Egyptian administration in the Lower Nubian forts (Smith 1995b). It is important to stress, however, that during most of the Second Intermediate Period²⁹² sealings are attested only at Kerma, the seat of the central administration of the Kushite kingdom, and they are no longer attested in Egypt.²⁹³ Their complete absence in other Nubian sites indicates that Kerma administrative practices differ from those of late Middle Kingdom Egypt (see also Smith 1995b;

²⁸⁷ For the Second Intermediate Period date of the Kerma sealings, see Gratien 1991: 21; 1998: 19; Smith 1995b.

²⁸⁸ Being aware of the "Hyksos" type scarabs found in the sacrificial corridor of tumulus X III, now dated to the last phase of the Classic Kerma period, Reisner concludes that scarabs of this type first appear in the reign of Amenemhat II (Reisner 1923: 86).

²⁸⁹ E.g. Reisner 1923: Pls. 40, 41: second and third row from the top.

²⁹⁰ Markowitz does not present these scarabs nor does she refer to Reisner's publication, and it is therefore not possible to examine them.

²⁹¹ For the distribution of the scarabs, see Reisner 1923: 81-84.

²⁹² Except for a small number of sealings from late Middle Kingdom administrative units that continued into the early Second Intermediate Period (above, §IIa).

²⁹³ The sealings recently found in 18th Dynasty contexts at Tell el-Dab'a (Bietak 2004) may suggest the continuation of this administrative practice at Avaris during the Second Intermediate Period, yet no sealings were found in Second Intermediate Period contexts at the site.

Gratien 2004). The control of Nubia by the Kerma rulers does not seem to have involved administrative supervision of the type practiced by the late Middle Kingdom Pharaohs.²⁹⁴

The scarabs and seal impression from Kerma (Reisner 1923: Figs. 168-69, Pls. 40-42) display apart from the local seals a majority of Second Intermediate Period type scarabs and a small number of late Middle Kingdom scarabs,²⁹⁵ the latter including three private-name scarabs.²⁹⁶ Both the scarabs and sealing at Kerma display a significant number of Canaanite designs such as variations of the *ḥur* formula,²⁹⁷ and designs depicting hollowed out human and animal figures categorized by Tufnell under design classes 9 and 10 (Reisner 1923: Figs. 168-169: 72-83, 85, 87-93, 95-98, Pl. 40: II-74 – II-78, II-81, II-83 – II-91. Pl. 42: I-7 – I-10).²⁹⁸ Gratien's proposed Kerma origin for some of these scarabs (2004: 78) does not take into account the large number of examples found in the Palestinian series and traits indicating Levantine inspiration, which attest to their Canaanite origin (below, §IVA 9-10).

§IIb 5. Scarabs from Second Intermediate Period contexts in the eastern Delta

Apart from Tell el-Dab'a only two eastern Delta sites yielded scarabs from Second Intermediate Period contexts: Tell el-Yehudiyeh (Petrie 1906: 10-12, 15, 67-71, Pls. 4A, 6-8, 9; Tufnell 1978: Figs. 1-2), and Tell el-Maskhuta (Weinstein 1995: 87-89).²⁹⁹ The overwhelming Canaanite affinity of the material culture at both sites points to the Canaanite origin of the population (Petrie 1906: 8-9, 15; Tufnell 1978: 86-87; Redmount 1995: 64-66; Weinstein 1995: 87-89), which is also indicated by the scarabs found at both sites.

§IIb 5a. Tell el-Yehudiyeh

Tell el-Yehudiyeh is situated east of the Pelusiac branch of the Nile about twenty miles north of Cairo, between Memphis and Wadi Tumilat (Baines and Málek 1980: 167). Naville's excavations at the site in the late 19th century yielded fifty-two scarabs, the contexts of which are unknown as most were bought from local workers who found them during illicit excavations at the site (Naville and Griffith 1890: 39, Pl. 10). Petrie, who continued Naville's excavations at Tell el-Yehudiyeh found twenty-nine scarabs in graves located inside the "Hyksos camp" and in the eastern cemetery (Petrie 1906: 3-4, 10-14, Pls. 6-8). Eighty additional scarabs were found singly at the site or bought from local workmen during Petrie's excavations (Petrie 1906: 15, Pl. 9).

Petrie recognized the Second Intermediate Period chronological range of most scarabs found at the site³⁰⁰ and dated them between the 13th and 17th Dynasties (1906: 10-11). Based on his suggested stylistic development of scarabs, Petrie proposed a sequence for the scarabs from the Tell el-Yehudiyeh graves and thereby for the graves in which they were found (Petrie 1906: 11-15, Pls. 7-8). Petrie's suggested sequence is based on his "rule of degradation", which considers the development of many artifacts including scarabs as a process of gradual degradation from well executed to poorly executed products (Petrie 1906: 11-15; 1925: 8). This suggested development, although sometimes reflecting Petrie's keen observation³⁰¹ was based on the limited evidence available at the time, and can no longer be considered. Petrie's proposed sequence does not take into account the occurrence of heirloom scarabs,³⁰² the Canaanite origin of many "degraded" designs,³⁰³ and the simultaneous production of well-executed and degraded designs during this period (see also Ward 1978a: 1).

A later attempt to establish the sequence and absolute dates of the Tell el-Yehudiyeh scarabs was made by Tufnell, who revised Petrie's publication of the tombs and like Petrie used scarabs as the primary dating tool (Tufnell 1978). Tufnell's suggested sequence and dating of the Tell el-Yehudiyeh scarabs rely on her exhaustive study of excavated series from Palestine later published in her 1984 typology. Tufnell notes the close similarity between

²⁹⁴ Gratien suggests that the Kerma sealings reflect diplomatic and commercial contacts with Thebes in the Classic Kerma period (1991: 21). This suggestion, however, does not take into account the complete lack of evidence from Egypt during most of the Second Intermediate Period for the use of scarabs as administrative seals (above, introduction to chapter II).

²⁹⁵ Reisner 1923: Pl. 40: II-56, II-57, II-66, II-67, possibly II-68, II-71, and one small *rdi-r* type scarab (II-49), Pl. 42: I-4, I-5, I-6 (18-20).

²⁹⁶ Reisner 1923: Pl. 40: II-71, Pl. 42: I-5, I-6 (19-20). See also Markowitz 1997: 84-85.

²⁹⁷ Reisner 1923: Pl. 40: II-42, II-63, II-69, II-70. Design class 3C (Tufnell 1984: Pl. 16).

²⁹⁸ For parallels see Tufnell 1984: Pls. 36-47.

²⁹⁹ The scarabs from Tell el-Maskhuta, found by the University of Toronto expedition under the direction of John S. Holladay, Jr., have not been published. I am most grateful to James Weinstein who is working on their publication and to John Holladay Jr. for their kind permission to include the Tell el-Maskhuta scarabs in this study and for sending me the existing drawings of the scarabs and the excavation notes associated with them (See discussion of Tell el-Maskhuta below).

³⁰⁰ Based primarily on royal-name scarabs (Petrie 1906: 10).

³⁰¹ Petrie frequently considers designs occurring on late Middle Kingdom scarabs as early well-executed designs and those occurring on Canaanite scarabs as "degraded" later ones (1906: 11-15).

³⁰² As in the case of three late Middle Kingdom scarabs from graves 2 and 407 (Petrie 1906: Pl. 7: 1, 6-7), which made Petrie place these tombs earliest in the series (Petrie 1906: 11).

³⁰³ E.g. Petrie 1906: Pls. 7-8: 14-18, 33-34, 44.

burial customs at Tell el-Yehudiyeh and Canaanite cemeteries in Palestine (1978: 76, 86-87). Moreover, her stylistic comparisons of the scarabs are made exclusively with the Palestinian series (Tufnell 1978: 76-81), where many parallels for the Tell el-Yehudiyeh scarabs are indeed found. In her discussion of the Tell el-Yehudiyeh scarabs Tufnell separates examples found in tombs from those found singly or bought at the site during Naville's and Petrie's excavations. Focusing primarily on the scarabs' average length and using comparative material from Palestine Tufnell concludes in agreement with Petrie that the Tell el-Yehudiyeh scarabs found in the graves are earlier than those found singly or bought at the site (Tufnell 1978: 77-79). Tufnell further states that her analysis confirms Petrie's suggested sequence for the scarabs from the graves (1978: 79). Based on her analysis of the scarabs Tufnell dates the Second Intermediate Period occupation at Tell el-Yehudiyeh between ca. 1700 and 1600 BCE, attributing this chronological range to the "Hyksos Period"³⁰⁴ (Tufnell 1978: 81, 86-87).³⁰⁵

As noted above, the sequence and absolute chronology proposed by Tufnell for the Tell el-Yehudiyeh graves and settlement are based mainly on scarabs. Tufnell hardly considers the pottery found at the site due to lack of sufficient evidence in 1978 for the sequence and chronology of the particular ceramic repertoire of the eastern Delta in the Second Intermediate Period. Studies of this distinctive group could only be established on the extensive corpus of stratified examples from Tell el-Dab`a, which provide the primary source material for the study of this particular ceramic repertoire (Bietak 1984a; 1986; 1989; 1991; 1997).³⁰⁶ Furthermore, Bietak's detailed studies of the Tell el-Yehudiyeh ware (1986; 1989; 1991; 1997: 91-96), which occur in significant numbers at Tell el-Yehudiyeh (and are in fact named after this site where they were first discovered), were not available to Tufnell.³⁰⁷

Types of Tell el-Yehudiyeh ware from the graves at Tell el-Yehudiyeh find their best parallels at Tell el-Dab`a in strata E2/E1-D2 that are attributed by Bietak to the reign of the 15th Dynasty, i.e. the Hyksos Period (Bietak 1986: 346; 1989, Pls. 11-14; 1991, Fig. 12; 1997: 91-96). The similarity between other forms of Egyptian and Canaanite pottery from Tell el-Yehudiyeh (Tufnell 1978, Figs. 3-8) and Tell el-Dab`a strata E1-D2 (Bietak 1991, Figs. 10-11) supports the evidence provided by the Tell el-Yehudiyeh ware.³⁰⁸ The pottery from the graves confirms Tufnell's observation that the settlement at Tell el-Yehudiyeh coincides with the late Middle Bronze phases at Jericho and Tell el-`Ajjul (Tufnell 1978: 80-81).³⁰⁹ However, her suggested absolute dates for the Second Intermediate Period occupation at Tell el-Yehudiyeh are too high as they are based on the high chronology for the Middle Bronze Age phases in Palestine, which can no longer be considered (below, introduction to chapter III).³¹⁰

The comparative pottery from Tell el-Dab`a argues that the beginning of the settlement at Tell el-Yehudiyeh, coinciding with strata E/2-E/1, cannot date earlier than ca. 1650 BCE (Bietak et al. 2001; Forstner-Müller 2003). The end of the Hyksos Period³¹¹ in the second half of the 16th century BCE, sometime between ca. 1540 and 1520, is confirmed by textual and archaeological sources and is no longer a subject of debate (Bietak 1991: 47-49; 1997: 115-17; O'Connor 1997: 45-52; Redford 1997: 11-16; Bourriau 2000: 185-95, 210-17). The Second Intermediate Period occupation at Tell el-Yehudiyeh should therefore be dated between ca. 1650 and at least 1540/30 BCE.

Weinstein suggests slightly earlier dates for the Tell el-Yehudiyeh settlement (1995: 87-88) due to his slight modification of Bietak's chronology for the occupation levels at Tell el-Dab`a (Weinstein 1992; 1995), and his assumption that Tell el-Yehudiyeh was abandoned prior to the end of Tell el-Dab`a (1995: 87-88). Weinstein argues that the ceramic assemblages from the Tell el-Yehudiyeh graves, though including forms attested at Tell el-Dab`a in stratum D/2, are as in the case of Tell el-Maskhuta largely contemporaneous with Tell el-Dab`a strata E/1 – D/3 (Weinstein 1995: 88). This conclusion is based primarily on the proportionately small number of these late pottery forms at Tell el-Yehudiyeh compared with their proportion in the ceramic assemblages of strata D/3 – D/2 at Tell el-Dab`a (Weinstein 1995: 88). It can, however, be argued that the minute ceramic assemblages from the Tell el-Yehudiyeh graves constitute merely a handful of vessels from a small number of tombs, which hardly form a representative group or a reliable comparative one for the vast ceramic assemblages at Tell el-Dab`a. Weinstein notes

³⁰⁴ The term "Hyksos Period" in this study refers to reign of the 15th Dynasty in Egypt, following the arguments presented by Ward (1987: 509, n. 9).

³⁰⁵ Tufnell acknowledges the continuation of the settlement at the site until the final phase of the "Hyksos Period" based on a royal-name scarab bearing the prenomen $\epsilon 3-wsr-r\epsilon$ of King Apophis (Petrie 1906, Pl. 9: 144).

³⁰⁶ The bulk of Second Intermediate Period pottery from this region consists of Egyptian pottery, Canaanite Middle Bronze imported pottery, and Canaanite forms produced locally (Bietak 1991; 1997; Redmount 1995). It is important to note that this particular ceramic repertoire is attested only in the eastern Delta (Bourriau 1997).

³⁰⁷ Tufnell notes the potential significance of Tell el-Dab`a for establishing the development of Tell el-Yehudiyeh ware (Tufnell 1978: 85).

³⁰⁸ For the dating of the settlement at Tell el-Yehudiyeh to the Hyksos Period see Bietak 1991: 29; 1997: 87; Weinstein 1992: 28; 1995: 84, 87-88.

³⁰⁹ For the absolute chronology of the Middle Bronze Age phases in Palestine, see below introduction to chapters III and IV.

³¹⁰ See also Weinstein 1995: 88.

³¹¹ Coinciding with the end of stratum D/2 at Tell el-Dab`a (Bietak 1997: 90).

(1995: 88) that pottery vessels of the latest types attested only in strata D/3 and D/2 at Tell el-Dab`a, occur in the Tell el-Yehudiyeh graves. These vessels and the royal-name scarab of Apophis found at the site argue that the Second Intermediate Period settlement continued into the last phase of the Hyksos Period coinciding with stratum D/2 at Tell el-Dab`a. A recent study of David Aston confirms the continuation of the Second Intermediate Period occupation at the site to the end of the period, and further argues for its continuation into the early 18th Dynasty (Aston 2003: 137-38, 140-42).³¹²

Tufnell's analysis of the Tell el-Yehudiyeh scarabs is problematic not only with regard to absolute chronology but also with regard to sequence. The sequence of the graves suggested by Petrie and Tufnell is not corroborated by the pottery found in the graves. Even a superficial examination of the Tell el-Yehudiyeh ware presented by Petrie reveals that identical types appear throughout his sequence (Petrie 1906: Pls. 7-8). The occurrence in the graves of the same types of vessels, all of which have parallels at Tell el-Dab`a strata E/1– D/2 (Bietak 1989: Figs. 1, 2),³¹³ does not support the scarab-based sequence proposed by Petrie and Tufnell. An exception is grave 37, placed late in the series by Petrie, which yielded a combed jug (Petrie 1906: Pl. 8: 52), the latest type of Tell el-Yehudiyeh ware at Tell el-Dab`a, occurring only in strata D/3-D/2 (Bietak 1991: 44, 46, and Fig. 12). The occurrence of the combed jug in grave 37 argues against Tufnell's suggested chronological difference between the scarabs from the graves and those found singly or bought at the site.

As noted above, Tufnell relies mainly on the average length of the scarabs, which she and Ward considered a significant chronological indicator, though both scholars were aware of its limitations (Ward 1978a: 20-23; Tufnell 1973; 1984: 28). Tufnell and Ward suggest a peak in scarabs' average length in the 13th Dynasty and a gradual diminution in size after this period, which continues until the early 18th Dynasty (Tufnell 1984: 28, 158, 168, 173-74). This conclusion is based on the large average length of 13th Dynasty royal-name scarabs of the Sobkhotep group, which Tufnell and Ward place between the early Palestinian series³¹⁴ and the late Palestinian series³¹⁵ (Tufnell 1984: 6, 85-86, 156-59; Ward and Dever 1994: 5-6, 120-31). The difficulties associated with the sequence and absolute chronology proposed by Tufnell and Ward for the Palestinian series were noted in many studies (Bietak 1984a: 482-85; O'Connor 1985; Beck and Zevulun 1996; Weinstein 1992; 1996; Ben-Tor 1997: 163-66; 2003) and they are discussed in detail below (introduction to chapter III). For the discussion here, two issues should be addressed: 1. The comparative material presented by Tufnell. 2. Her use of the average length of scarabs as a criterion to establish their sequence.

Tufnell's comparative material includes the scarabs from Megiddo, Jericho, and Tell el-`Ajjul (Tufnell 1978: 79-81). In her first analysis of the scarabs from burials on the mound at Megiddo, Tufnell dates the bulk of the scarabs between the reigns of Senwosret I and Senwosret III ca. 1700-1850 BCE (Tufnell 1973: 80).³¹⁶ In her discussion of the Tell el-Yehudiyeh scarabs Tufnell concludes, based on her 1973 study of the Megiddo scarabs, that "Megiddo ends as Yehudiyeh begins" (1978: 79). This conclusion is revised in her 1984 typology, where she acknowledges the continuation of the Megiddo tombs until the end of her examined series (Tufnell 1984: 58; see also Ward 1987: 512-14; Ward and Dever 1994: 5-6).

Disregarding Tufnell's suggested dates, which are discussed below, her observation of the absence of particular types of scarabs at Tell el-Yehudiyeh, which commonly occur in the early tombs at Megiddo (phases A-D) and in groups I-II at Jericho, is correct. The types missing at Tell el-Yehudiyeh are the ones characteristic of the early Palestinian series (Ward and Dever 1994: 5-6, periods IIA-III) found mainly in early MBIIB contexts in Palestine corresponding with Tell el-Dab`a strata F-E/3 (see introduction to chapter III).

Tufnell correctly notes the close similarity between the scarabs from the graves at Tell el-Yehudiyeh and those from group IV at Jericho (Tufnell 1978: 79), though her dating of these scarabs to the late 13th Dynasty (Tufnell 1973: 80; 1984: 84) can no longer be sustained (see introduction to chapter III). Her comparisons with Tell el-`Ajjul are mainly with the scarabs found singly or bought at the site, which according to Tufnell represent a period later than the one represented in the graves (Tufnell 1978: 81). An examination of the Tell el-Yehudiyeh scarabs

³¹² For a further discussion of this issue, see Tell el-Maskhuta below.

³¹³ Cylindrical and bag-shaped Tell el-Yehudiyeh juglets appear for the first time at Tell el-Dab`a in stratum E/1, continuing in D/3 and D/2 (Bietak 1991: 43-46). These forms are attested in graves 2, 407, and 3, which Petrie considers the earliest, together with biconical vessels which are also attested at Tell el-Dab`a in strata E/1-D/2 (Bietak 1991, Fig. 12).

³¹⁴ Dated by them mainly to the 12th Dynasty (Tufnell 1984: 1, 4-5; Ward 1987: 512-13, 516-17; Ward and Dever 1994: 5-6 – Periods IIA-III. See below introduction to chapter III).

³¹⁵ Dated by them to the 13th Dynasty and the Second Intermediate Period (Tufnell 1984: 6-23; Ward 1987: 517-18; Ward and Dever 1994: 6 – Periods IV-V).

³¹⁶ She compares, however, pottery from the late graves at Megiddo with pottery of groups III and IV at Jericho, dated by her to the 13th Dynasty (Tufnell 1973: 80, 82).

reveals, however, that both groups include a mixture of Middle Bronze Canaanite³¹⁷ and Second Intermediate Period Egyptian scarabs, and a small number of Middle Kingdom Egyptian heirlooms.³¹⁸ Moreover, no stylistic difference can be established between the scarabs from groups IV and V in Jericho (below, introduction to chapter IV), which display the same stylistic profile as other groups of the late Palestinian series. It is also demonstrated below (§ IVA) that the only difference between the Tell el-ʿAjjul corpus and other groups in the late Palestinian series is the occurrence of Egyptian Second Intermediate Period scarabs in the former, which are rarely attested in the other groups. This difference seems to have misled Tufnell who attributed it to a chronological difference.

Tufnell's suggested sequence of the scarabs, which is based on average length (Tufnell 1978: 77-79), is extremely problematic. Certain patterns of change in scarabs' average length do occur, as for example a gradual increase between First Intermediate Period and early Middle Kingdom scarabs (Ward 1978a: Pls. 1-15). Moreover, particular types of 13th Dynasty scarabs indeed show a large average length (Tufnell 1984: 86, 156-59), and scarabs of the early 18th Dynasty display a small average length (Petrie 1917: Pls. 23-25; Hayes 1959: 87, Fig. 48). Nevertheless, the pattern of change proposed by Tufnell is based on incorrect dating and sequence of the Palestinian series, which she does not distinguish from the Egyptian series (below, introduction to chapter III). Her discussion also ignores the large range of sizes attested during the period represented at Tell el-Yehudiyeh, as for example scarabs displaying design classes 9 and 10 in the late Palestinian series (Tufnell 1984: Pls. 36-48) and royal-name scarabs of this period (Tufnell 1984: Pls. 57-61).³¹⁹ It is important to note that Ward eventually recognized the unreliability of a sequence based on scarabs' average length, and this criterion is no longer used in his later studies (Ward 1987: 510-11; Ward and Dever 1994: 147-69).

§IIb 5b. Tell el-Maskhuta

Tell el-Maskhuta is located in the eastern part of Wadi Tumilat between Tell el-Ratabah and the modern city of Ismailia (Baines and Málek 1980: 167; Redmount 1995: 66-67). Five seasons of excavations at the site were conducted by the University of Toronto between 1978 and 1985 under the direction of John S. Holladay, Jr. The excavations revealed a small settlement and a number of tombs dating from the Second Intermediate Period, which like Tell el-Yehudiyeh display overwhelming Canaanite Middle Bronze affinity in the material culture (Holladay 1982; 1997; Weinstein 1992: 32-33; 1995: 87-88; Redmount 1995). Forty-eight scarabs were found at the site, thirty-one of them attributed to the Second Intermediate Period occupation (**Appendix plates 1-2**).³²⁰ The excavation notes indicate that twenty-five of the thirty-one scarabs attributed to the Second Intermediate Period occupation levels come from tombs yielding MBIIB material culture (**Appendix Pl. 1: 1, 3-8, 10-15; Appendix Pl. 2: 1, 3-8**),³²¹ and six were found in occupational remains of the period or later deposits (**Appendix Pl. 1: 2, 9, 16, Appendix Pl. 2: 2, 9-10**).³²²

The excavations at Tell el-Maskhuta uncovered two MBIIB occupation levels, distinguished through stratigraphic position and pottery (Weinstein 1992: 39, n.15). The ceramic assemblages at the site display the typical mixed eastern Delta repertoire of this period, which is also attested at Tell el-Yehudiyeh and Tell el-Dab'a (Redmount 1995). The closest parallels for the Tell el-Maskhuta pottery corpus come from strata E/1 – D/3 at Tell el-Dab'a (Redmount 1995: 81; Weinstein 1995: 88; Holladay 1997: 188), indicating the Hyksos Period date of the settlement (see Tell el-Yehudiyeh above). Weinstein notes the close similarity between the ceramic assemblages at

³¹⁷ As only drawings of the base designs are presented for the majority of the scarabs, only distinctive Canaanite designs that are commonly attested in the Palestinian series (Tufnell 1984) are considered here. These include Naville and Griffith 1890: Pl. 10: 1, 5-14, 17, 34, 43, 44, 47; Petrie 1906: Pl. 6: 4-5, Pls. 7-8: 14-18, 27-28, 33-34, 43-45, Pl. 9: 118, 121, 134-135, 137-140, 152, 154-55, 157-167, 185, 187.

³¹⁸ Probable late Middle Kingdom heirlooms from the graves are presented in Tufnell 1978: Figs. 1-2: 1, 2, 4, 20. Late Middle Kingdom scarabs also occur among those found singly or purchased at the site (Petrie 1906: Pl. 9: 109-111, 113, 116, 126, 127, 147). Two early Middle Kingdom and one late Middle Kingdom heirlooms are presented, respectively, in Naville and Griffith 1890: Pl. 10: 35-36, 40.

³¹⁹ The questionable reliability of average length is also apparent when scarabs from the same contexts at Tell Fara and Tell el-ʿAjjul presented by Tufnell (1984: 90-93) are examined. These include examples ranging in length between 11-25 mm and 12-27 mm from cemetery 1000 at Tell Fara, and between 12-24 mm from City Level III Block B-D at Tell el-ʿAjjul. The average lengths of 18.4 mm, 18.9 mm, and 17.9 mm, respectively, is therefore meaningless.

³²⁰ As most scarabs from the site are of Canaanite origin (below), and the plates illustrating this chapter display exclusively scarabs of Egyptian Second Intermediate Period origin, the drawings of the Tell el-Maskhuta scarabs are presented here as appendix plates. Only twenty-six of the thirty-one scarabs are displayed, as five items have a plain base. Four of the latter are made of amethyst (M83-455, M83-470, M83-471, M83-493) one of them set in a silver ring (M83-455), and one is made of faience (M83-492). These plain scarabs are almost certainly late Middle Kingdom heirlooms.

³²¹ Also the five plain scarabs (see n. 320).

³²² See also Weinstein 1992: 32.

Tell el-Yehudiyeh and Tell el-Maskhuta, arguing that the settlements at both sites are largely contemporaneous,³²³ and that both ended prior to the abandonment of Tell el-Dab`a (Weinstein 1995: 88).³²⁴ The full corpus of the Tell el-Maskhuta pottery has not been published;³²⁵ however, Redmount, Weinstein, and Holladay note late forms in the ceramic assemblages from the site, which occur at Tell el-Dab`a only in strata D/3 – D/2 (Redmount 1995: 66-81; Weinstein 1995: 88; Holladay 1997: 188). These late forms, which were also found at Tell el-Yehudiyeh, argue as in the case of Tell el-Yehudiyeh for the continuation of the settlement into the period represented by stratum D/2 at Tell el-Dab`a.

Weinstein argues for a chronological range of the Tell el-Maskhuta scarabs between the second half of the 13th Dynasty and at least the first half of the 15th Dynasty, stating that their closest parallels come from group IV at Jericho with some overlapping with groups III and V (Weinstein 1992: 32-33; 1995: 87-88). Based on his analysis of the scarabs he concludes that no scarabs at Tell el-Maskhuta need be dated to the late 15th Dynasty, confirming the ceramic evidence for the end of occupation at the site prior to the end of the Second Intermediate Period (1995: 87-88). It is argued here, however, that as in the case of the published pottery from the site, the evidence provided by the scarabs for the end of occupation at the site is far from conclusive. Weinstein's statement that none of the Tell el-Maskhuta scarabs need be dated to the late 15th Dynasty is problematic because defining design scarabs of the late Hyksos Period is extremely difficult. Due to extensive plundering and reuse of Second Intermediate Period cemeteries in Egypt and Nubia the excavated series discussed in this chapter are hopelessly mixed and relatively small. The unfortunate state of preservation of the archaeological record of this period makes it practically impossible to establish a stylistic sequence of scarabs based on the excavated series. The small groups that survived the extensive plundering and reuse of the cemeteries are mere accidents of survival, hardly forming a representative corpus. Moreover, even groups from contexts that are securely dated by pottery to the last phase of the Second Intermediate Period, as for example cemetery K at Mayana (above, §IIB 1b) are not very helpful as they do not necessarily include only items dating from the time of interment.³²⁶

Only a small number of scarabs and design amulets can be attributed to the late Second Intermediate Period, based not on their archaeological contexts but on designs and features occurring also on royal-name scarabs and design amulets of King Apophis (below, §IIB 1). Such examples are extremely rare in the excavated series as a result of the latter's plundered and disturbed contexts, but the Tell el-Maskhuta scarabs include one such item (**Pl. 33: 13 = Appendix Pl. 2:2**) from a late MBIIB context. The design on this scarab is an Egyptian variation of the early Canaanite design categorized by Tufnell as design class 3A4 – Horus hawk with *ntr* and other signs (Tufnell 1984: 118, Pl. 9; Ben-Tor 1997: 178-79, and below, §IIA 3a4). Scarabs displaying the Egyptian variations of this design differ stylistically from the early Canaanite examples in both design and features (Ben-Tor 1997: 178-79; 2004: 34-37, and Fig. 7). Moreover, they are extremely rare in the Palestinian series except for isolated examples mainly from Tell el-`Ajjul (Tufnell 1984: Pl. 9: 1465-1466). The late 15th Dynasty date of this group is indicated by the type of cowroids associated with it, which is identical to those bearing the name of King Apophis (compare Hall 1913: 256-58, Nos. 2561-2564, 2567-2568, 2574 and Tufnell 1984: Pl. 64: 3523-3527). Identical designs flanking the king's name and the "formula" on these cowroids leave little doubt as regards their contemporaneous production (compare Hall 1913: 257, No. 2568 and Tufnell 1984: Pl. 64: 3525). The occurrence of this scarab in a late MBIIB context at Tell el-Maskhuta argues for the continuation of the settlement at least to the time of King Apophis.

As for the date of the Canaanite scarabs at Tell el-Maskhuta, it is argued below (§IVA) that the designs comprising the late Palestinian series occur throughout groups III, IV, and V at Jericho, and that these groups are largely homogeneous stylistically.³²⁷ Moreover, the excavated series in Palestine frequently display, as in the case of Egypt and Nubia, a mixture of contemporaneous and earlier items (below, §IIIA, §IVA). Weinstein correctly notes the similarity between the scarabs from Tell el-Yehudiyeh and Tell el-Maskhuta and those from groups III-V at Jericho (1995: 77-88). This similarity reflects the Canaanite origin of many of the Tell el-Maskhuta scarabs, and suggests a similar chronological range. The 13th - early 15th Dynasty dates attributed by Tufnell and Ward to groups III-V at Jericho are no longer acceptable considering the evidence from Tell el-Dab`a, which argues for the coinciding of these phases with the 15th Dynasty, Group V probably continuing into the early 18th Dynasty (below, §IVA 1a). A 15th Dynasty date for the occupation at Tell el-Maskhuta agrees with the pottery found at the site, which as noted

³²³ Though suggesting that the settlement at Tell el-Yehudiyeh may have lasted somewhat longer than the one at Tell el-Maskhuta (Weinstein 1995: 88).

³²⁴ See also Redmount 1995: 67-68; Holladay 1997: 188.

³²⁵ See Holladay 1997: 228-44, Pls. 7.1-7.17 for a representative corpus.

³²⁶ This is clearly indicated by the early Middle Kingdom (Petrie and Brunton 1924, Pl. 43: 41, 63) and late Middle Kingdom items (Petrie and Brunton 1924, Pl. 43: 10, 22 [a sealing], 44) in this group.

³²⁷ The differences between the groups that are presented by Tufnell (1984: 83-84) refer only to pottery forms. See also Ward 1987: 518-21.

above, has its best parallels in strata E/1-D/3 at Tell el-Dab`a (Redmount 1995: 81; Weinstein 1995: 88). It should be noted that as satellite sites of Tell el-Dab`a – the Hyksos capital, Tell el-Maskhuta and Tell el-Yehudiyeh were likely to survive at least to the time of the Theban and Hyksos wars during the reign of Kamose. Ending the occupation at these sites earlier does not make much sense historically.³²⁸

An examination of the Second Intermediate Period scarabs from Tell el-Maskhuta reveals a significant number of Canaanite scarabs, which is not surprising considering the origin of the population at the site (Holladay 1982: 44-47; Redmount 1995). As in the case of most excavated groups discussed in this chapter the Tell el-Maskhuta scarabs include late Middle Kingdom heirlooms (**Appendix Pl. 1: 3, 8, 10-11**),³²⁹ which do not indicate a late Middle Kingdom (or 13th Dynasty) date for their interment. Weinstein divides the scarabs into two groups that he defines, based on their contexts, as Early and Late phases of MBIIB (Weinstein 1992: 32-33, and n. 17; 1995: 87-88). The Early group includes 14 scarabs (**Appendix Pl. 1: 1-10**),³³⁰ the late group includes 11 scarabs (**Appendix Pl. 1: 11-16, Appendix Pl. 2: 1-4**),³³¹ and four additional scarabs are noted as MBII or MBIIB (**Appendix Pl. 2: 5-8**).³³² Fourteen scarabs display distinctive Canaanite characteristics (**Appendix Pl. 1: 1-2, 4-5, 7, 9, 12, 14-16, Appendix Pl. 2: 3, 6, 9-10**),³³³ and three additional scarabs display characteristics suggesting a highly likely Canaanite origin (**Appendix Pl. 1: 6, Appendix Pl. 2: 1, 4**).³³⁴

§IIb 5c. Tell el-Dab`a

One hundred and thirty-seven scarabs were found in stratified deposits at Tell el-Dab`a, and ninety-three scarabs come from unclear contexts at the site (Mlinar 2001). Sixteen additional scarabs from the site were recently published, fifteen of them from stratified contexts (Mlinar 2002). Most stratified scarabs come from tombs, which were associated by the excavators with occupation levels ranging between strata G and D/2, and dating from the late Middle Kingdom to the end of the Second Intermediate Period (Mlinar 2001). The Tell el-Dab`a stratified scarabs offer helpful information with regard to the history of the site (Bietak et al. 2001), as well as evidence for the sequence and dating of particular types of scarabs (below). Nevertheless, they do not provide useful evidence for a typological sequence of scarabs of the late Middle Kingdom and Second Intermediate Period, as they do not form representative groups for either period. Mlinar categorizes the Tell el-Dab`a scarabs under six types (I - VI) from the late Middle Kingdom through the Second Intermediate Period respectively (in Bietak et al. 2001: 176-79; 2004), some of them representing Tell el-Dab`a productions (Mlinar in Bietak et al. 2001: 176-79; Mlinar 2004).

Forty-eight of the stratified scarabs are associated with strata G - F of the late Middle Kingdom (Mlinar 2001: 1-22, 101-111, 201-215).³³⁵ They include typical late Middle Kingdom-type scarabs (Mlinar's Type I),³³⁶ a couple of early Middle Kingdom heirlooms,³³⁷ and a significant number of locally produced scarabs of types that are rarely attested elsewhere (Mlinar's Types II-III).³³⁸ The latter display designs that imitate those of late Middle Kingdom-type scarabs, indicating their source of inspiration. They also display, however, local variations of Middle Kingdom designs, and distinctive back and head types that differ from those of late Middle Kingdom scarabs (**Pls. 30-31**). Found almost exclusively at Tell el-Dab`a, these scarabs are irrelevant for the scarab typology of the late Middle Kingdom. They indicate, however, the existence of a local workshop at Tell el-Dab`a beginning in the second level of the Canaanite settlement, and show the production of scarabs and their use as funerary amulets by the Canaanite

³²⁸ Recent analysis by David Aston of the ceramic assemblages from both sites indicates that the occupation indeed continued to the end of the SIP at Tell el-Maskhuta and to the beginning of the 18th Dynasty at Tell el-Yehudiyeh (see discussion of Tell el-Yehudiyeh above). I am very grateful to David Aston for sharing this information with me during the scarab workshop held in Vienna in January 2002.

³²⁹ Possibly also the small *rdi-r^c* scarab (**Appendix Pl. 2: 5**), and the five plain scarabs noted above.

³³⁰ Also four plain scarabs: three of amethyst (M83-470, M83-471, M83-493) and one of faience (M83-492).

³³¹ Also an amethyst scarab set in a silver ring (M83-455).

³³² Excavation notes; Weinstein 1992: 39-40, n. 17.

³³³ Displaying respectively design class 3D (Tufnell 1984: Pls. 17-18), design class 4 (Tufnell 1984: Pl. 22), design class 10C2b (Tufnell 1984: Pl. 47), design class 9B (Tufnell 1984: Pl. 36), design class 10A1b (Tufnell 1984: Pl. 42), design class 3B1 (Tufnell 1984: Pl. 10), design class 10D2 (Tufnell 1984: Pl. 48), design class 10C1a (Tufnell 1984: Pl. 46), design class 3D (Tufnell 1984: Pls. 17-18), design class 10A2c (Tufnell 1984: Pl. 44), design class 10A2b (Tufnell 1984: Pl. 44), symmetric design including the name of the god Ptah (Keel 2001: 197-200), design class 10A2b (Tufnell 1984: Pl. 44), design class 9C4 (Tufnell 1984: Pl. 38).

³³⁴ Displaying respectively design class 6B2a (Tufnell 1984: Pl. 24), design class 9B (see §IIA 9a below), design class 1E3 (Tufnell 1984: Pl. 3).

³³⁵ One additional example was recently published by Mlinar (2002: 240-45, No. 12).

³³⁶ Mlinar 2001, nos. 6, 10, 13-14, 16, 18, 20, 101, 107-109, 111, 205; 2002, No. 12. See also Mlinar 2004: 107-13.

³³⁷ Mlinar 2001, nos. 11, 17, and possibly 203.

³³⁸ Type II: Mlinar 2001, nos. 5, 9, 15, 104, 110, 203, 206, 215. Type III: Mlinar 2001, nos. 2-4, 8, 12, 102-103, 105-106, 202, 204, 207, 212, 214. See also Mlinar 2004: 113-22.

population at the site already in the late Middle Kingdom.³³⁹ It is important to note that scarabs of these types (Mlinar's types II-III) are almost completely absent in the Levant.³⁴⁰

The eighty-nine scarabs from Second Intermediate Period contexts at Tell el-Dab`a (strata E/3-D/2) also include locally produced scarabs (Mlinar 2001: 203-524), as well as scarabs displaying distinctive Canaanite characteristics³⁴¹ and Middle Kingdom heirlooms.³⁴² Strata E/3 and E/2 yielded only seven and six scarabs respectively (Mlinar 2001: 203-262), constituting mainly locally produced scarabs of Mlinar's type III (which are most common in late Middle Kingdom strata),³⁴³ one Canaanite scarab,³⁴⁴ and one late Middle Kingdom type scarab.³⁴⁵ Mlinar's type II does not continue beyond stratum F, and type III does not continue beyond stratum E/2 (Mlinar in Bietak et al. 2001: 179; 2004: Fig. 15).³⁴⁶

A new type (Mlinar's type IV), which is first attested in one example in stratum E/2,³⁴⁷ becomes the dominant type in stratum E/1 (Mlinar in Bietak et al. 2001: 179). Stratum E/1 revealed twenty-five scarabs (Mlinar 2001: 264-346), and twenty-two additional scarabs, most of them displaying Mlinar's type IV, are attributed to strata E/1-D/3 (Mlinar 2001: 347-410). Mlinar's type IV scarabs display both late Middle Kingdom³⁴⁸ and Canaanite³⁴⁹ designs; yet unlike the earlier local types, the typical features of type IV are not exclusive to Tell el-Dab`a. Moreover, they are commonly attested on Canaanite scarabs in the Palestinian series (below, §IVA) and Mlinar recently concluded that this group consists primarily of Palestinian imports (2004: 122-28).

Twenty-eight scarabs and one rectangular plaque come from strata D/3 and D/2, which date from the late Hyksos Period: Eleven scarabs from stratum D/3, fourteen scarabs from stratum D/2, and three scarabs and the rectangular plaque attributed to strata D/3-D/2 (Mlinar 2001: 411-524). Ten additional scarabs from strata D/3-D/2 were recently published by Mlinar (2002, Nos. 1-10). The late stratified group from Tell el-Dab`a comprising Mlinar's types V and VI, does not display distinctive features that can be attributed with certainty to a local workshop. This group includes one late Middle Kingdom³⁵⁰ and one early Middle Kingdom³⁵¹ heirlooms, nine scarabs with distinctive Canaanite characteristics,³⁵² and the only stratified royal-name scarab³⁵³ and private-name scarab³⁵⁴ of the Second Intermediate Period from the site. The latter are almost certainly products of a local workshop at the Tell el-Dab`a (below, §IIB 1, 3). Canaanite scarabs displaying design classes 9 and 10 first occur in this group,³⁵⁵ displaying features identical to those attested on the name scarabs of the period, making it practically impossible to distinguish products of the Palestinian workshops from those of the Tell el-Dab`a workshop of this period (below, §IVB).

The ninety-three scarabs from unclear contexts at the site display more or less the same types as the stratified groups. This relatively large group includes only one royal-name scarab, which bears the prenomen *ḥ3-wsr-r* of King Apophis (Mlinar 2001, no. 1074), and no Second Intermediate Period private-name scarabs. As noted above,

³³⁹ The great majority of stratified scarabs from the site were found in tombs (Mlinar 2001).

³⁴⁰ Only isolated examples displaying Mlinar type III were found in Palestine, e.g. a scarab from an MBIIB tomb at Ashkelon (51,545) bearing an imitation of a royal-name scarab of Amenemhat III. I thank Jill Baker and Lawrence Stager for their permission to present the Ashkelon scarab in this study.

³⁴¹ Mlinar 2001, no. 306 – design class 4 (Tufnell 1984, Pl. 21). No. 510 – design class 5 (Tufnell 1984, Pl. 23). No. 614 – design class 3A3 (Tufnell 1984, Pl. 8, 8b). No. 701 – design class 10A2c (Tufnell 1984, Pl. 44). No. 702 – design class 9C3 (Tufnell 1984, Pl. 37). No. 801 – design class 10A2c and 10C2b (Tufnell 1984, Pls. 44, 47). No. 911 – design class 10A2c (Tufnell 1984, Pl. 44). No. 913 – design class 10A2f (Tufnell 1984, Pl. 44). No. 914 – design class 9C3 (Tufnell 1984, Pl. 37).

³⁴² For late Middle Kingdom scarabs see Mlinar 2001, nos. 403, 615, and possibly 507, 517. For an early Middle Kingdom example see Mlinar 2001, no. 912.

³⁴³ Mlinar 2001, nos. 301-305, 307, 401, 404.

³⁴⁴ Mlinar 2001, no. 306.

³⁴⁵ Mlinar 2001, no. 403.

³⁴⁶ The single example from stratum E1 is most probably an heirloom.

³⁴⁷ Mlinar 2001, no. 402.

³⁴⁸ E.g. Mlinar 2001, nos. 502, 506, 514, 520, 524, 601, 610, 613.

³⁴⁹ E.g. Mlinar 2001, nos. 509, 518, 519, 521, 603.

³⁵⁰ Mlinar 2002: 236, No. 7.

³⁵¹ Mlinar 2001, no. 912.

³⁵² Mlinar 2001, nos. 701 – design class 10A2c (Tufnell 1984: Pl. 44), 702 – design class 9C3 (Tufnell 1984: Pl. 37), 707 – not in Tufnell's 1984 typology but see Tufnell 1958: Pl. 30: 16, Pl. 32: 75, 801 – design classes 10A2c and 10C2b (Tufnell 1984: Pls. 44, 47), 911 – design class 10A2c (Tufnell 1984: Pl. 44), 913 – design class 10A2f (Tufnell 1984: Pl. 44), 914 – design class 9C3 (Tufnell 1984: Pl. 37). Mlinar 2002: Nos. 5 – design class 4B (Tufnell 1984: Pl. 21), 6 – design class 10C1b (Tufnell 1984: Pl. 46).

³⁵³ Mlinar 2001, no. 711.

³⁵⁴ Mlinar 2001, no. 909.

³⁵⁵ Mlinar 2001, nos. 701, 702, 801, 911, 913, 914; 2002, No. 6.

name scarabs of this period are almost certainly products of Tell el-Dab`a, and their almost complete absence at the site most probably reflects the massive plundering in later periods.

Table 2 – Principal Egyptian and Nubian sites yielding scarabs and seal impressions of the Second Intermediate Period Egyptian/Nubian series (arranged north to south)

Site	Second Intermediate Period occupation	Notes
Tell el-Dab`a	Second Intermediate Period settlement and associated tombs (Bietak 1991; 1996; 1997).	Second Intermediate Period scarabs from tombs and settlement (Mlinar 2001; 2004).
Tell el-Maskhuta	Second Intermediate Period settlement and associated tombs (Holladay 1982; 1997; Redmont 1995; Weinstein 1995: 87-88).	Second Intermediate Period scarabs from tombs (Weinstein 1992: 32; Holladay 1997: Fig. 7.9).
Tell el-Yehudiyeh	Second Intermediate Period settlement and associated cemetery (Naville and Griffith 1890; Petrie 1906).	Second Intermediate Period scarabs from cemetery and settlement (Naville and Griffith 1890: Pl. 10; Petrie 1906: Pls. 6-9; Tufnell 1978).
Kom Rabi`a/Memphis	Continuation of Middle Kingdom settlement into the Second Intermediate Period (Bourriau 1997: 161-67).	Two sealings bearing Second Intermediate Period designs (Giddy and Jeffreys 1993: 20; Richards 2001: 303).
North Pyramid cemetery of el-Lisht	Continuation of Middle Kingdom settlement and cemetery into the Second Intermediate Period (Arnold et al. 1995: 26; Bourriau 1997: 166-67; 2000: 197-98).	Second Intermediate Period design and royal-name scarabs (Unpublished, see Pls. X).
Mayana cemetery K at Sedment	Burials dating from the late Second Intermediate Period and early 18 th Dynasty (Petrie and Brunton 1924: 16-21; Bourriau 1997: 167).	Scarabs dating mainly from the Second Intermediate Period (Petrie and Brunton 1924: Pl. 43).
Matmar	Small Second Intermediate Period cemetery (Brunton 1948: 56-58).	Scarabs dating from the Second Intermediate Period (Brunton 1948: Pl. 43).
Mostagedda	Second Intermediate Period cemetery including Egyptian and Pan-grave tombs (Brunton 1937: 127-34; Bourriau 1997: 167; 2000: 202).	Second Intermediate Period scarabs from Egyptian and Pan-grave tombs (Brunton 1937: Pl. 69).
Qau-Badari	Second Intermediate Period cemetery including Egyptian and Pan-grave tombs (Brunton 1930: 12; Bourriau 1997: 118; 2000: 203).	Second Intermediate Period scarabs from the Egyptian tombs (Brunton 1930: Pl. 19).
South Abydos	Continuation of Middle Kingdom town into the Second Intermediate Period (Wegner 2001b: 307-308).	Fragmentary sealing bearing a Second Intermediate Period royal name (Wegner 1998: Fig. 20: 6).
Hu (Diospolis Parva)	Continuation of Middle Kingdom cemetery through the Second Intermediate Period (Petrie 1901: 50-53).	Small number of Second Intermediate Period scarabs (Petrie 1901: Pl. 41).
Esna	Continuation of Middle Kingdom cemetery through the Second Intermediate Period (Downes 1974: 3-25).	Second Intermediate Period scarabs from mixed and reused tombs (Downes 1974: 60-66).
Elephantine	Continuation of Middle Kingdom settlement into the Second Intermediate Period (Von Pilgrim 1996: 15).	Sealings bearing Second Intermediate Period designs (Von Pilgrim 1996: Fig. 106).
Aniba	Continuation of Egyptian use of Middle Kingdom cemetery associated with the fort into the Second Intermediate Period (Steindorff 1937: 152-240), and nearby C-Group cemeteries (Steindorff 1935: 126-201).	Second Intermediate Period scarabs from the Egyptian cemetery (Steindorff 1937: Pls. 54-56) and the Nubian cemeteries (Steindorff 1935: Pl. 31).
Buhen	Continuation of Egyptian use of Middle Kingdom fort and associated cemetery into the Second Intermediate Period (Randall-MacIver and Woolley 1911: 185-96; Smith 1995a: 123-26).	Second Intermediate Period scarabs from contemporaneous and New Kingdom contexts (Randall-MacIver and Woolley 1911: Pls. 56-59, 89, 96).

II. Introduction

Site	Second Intermediate Period occupation	Notes
Mirgissa	Continuation of Egyptian use of Middle Kingdom fort and associated cemetery into the Second Intermediate Period, and a small Kerma cemetery (Vercoutter 1970: 235-36; 1976: 296-303; Smith 1995a: 67-69; 126-32).	Second Intermediate Period scarabs from Egyptian and Kerma tombs (Vercoutter 1970: Pl. 26; 1976: 275-77).
Semna	Continuation of Egyptian use of Middle Kingdom fort and associated cemetery into the Second Intermediate Period (Dunham and Janssen 1960: 74-111; Smith 1995a: 132-34).	Second Intermediate Period scarabs from the fort and associated cemetery in mixed contexts (Dunham and Janssen 1960: Pls. 120-23).
Middle Nubian sites in Lower Nubia	C-Group, Pan-grave, and Kerma cemeteries dating from the Second Intermediate Period (Säve-Söderbergh 1989: 12-22).	Second Intermediate Period scarabs from C-Group, Pan-grave, and Kerma tombs (Säve-Söderbergh 1989: Pls. 41-45).
Ukma West	Two phases of a Kerma cemetery, the later phase dating from the Second Intermediate Period (Vila 1987: 257-65).	Second Intermediate Period scarabs from later phase of the cemetery (Vila 1987: Pls. 5-8).
Saï Island	Large Kerma necropolis including Classic Kerma cemeteries (Gratien 1986: 18-21, 377-79).	Small number of Second Intermediate Period scarabs (Gratien 1986: 377).
Kerma	Large Classic Kerma settlement and associated cemetery (Reisner 1923; Kendall 1997).	Second Intermediate Period scarabs and sealing from cemetery and settlement (Reisner 1923: Pls. 2-3, 40-42; Markowitz 1997; Gratien 2004: Pls. 3-4).

§IIA. Typology of Designs

Efforts to establish a design typology of Second Intermediate Period Egyptian scarabs encounter considerable difficulties resulting primarily from the state of preservation of the excavated series. As demonstrated above, the latter consist almost exclusively of scarabs from cemeteries, the common reuse and massive plundering of which make it practically impossible to establish a stylistic sequence of scarabs of this period. Even the scarabs from stratified deposits at Tell el-Dab`a offer only limited information. Significantly, the number of scarabs comprising the Second Intermediate Period excavated series is smaller than that of the late Middle Kingdom series, and is considerably smaller when the Canaanite imports are disregarded and only those manufactured in Egypt are considered. Further difficulties result from the number of Second Intermediate Period scarabs found in early 18th Dynasty contexts³⁵⁶ and from late Middle Kingdom scarabs in Second Intermediate Period contexts. The number of late Middle Kingdom type scarabs in Second Intermediate Period contexts is notably small, arguing for the termination of their production after the abandonment of *iti-t3wy*. The common occurrence of so-called heirloom scarabs in the excavated series attests to the common reuse of scarabs in Egypt during these periods, which generated some confusion as already noted above (see also Bourriau 1987: 51).³⁵⁷

Taking into account the difficulties noted above, design scarabs that are defined in this chapter as Second Intermediate Period Egyptian include examples from Second Intermediate Period and early 18th Dynasty contexts displaying characteristics that are not attested on Middle Kingdom, New Kingdom, or Canaanite scarabs. These come mainly from the groups described above, with isolated examples from Koptos in northern Upper Egypt (Petrie 1896: 24, Pl. 16),³⁵⁸ and the Nubian cemeteries at Dakka (Firth 1915: Pl. 41) and Barsinishei (Firth 1927: Pl. 36) in Lower Nubia.

The number of examples in the Second Intermediate Period series is relatively small and the repertoire of designs is limited. Moreover, the distinction between Egyptian and Canaanite scarabs bearing particular designs is not always conclusive, and the origin of some examples remains ambiguous until further evidence becomes available. It is important to note here that designs traditionally considered as "Hyksos designs" (Ward 1987: 523-26), namely the *ur*^c formula (design class 3C), panel designs (design class 3E), and deeply cut human and animal figures (design classes 9, 10) are of Canaanite origin (below, §IVA 3c, §IVA 9-10). Nevertheless, variations of these designs are attested on Egyptian Second Intermediate Period scarabs (below).

The mixture of designs noted on late Middle Kingdom scarabs is also attested on Second Intermediate Period scarabs. Considering the relatively small number of examples attested for each design class in the Second Intermediate Period series, some scarabs are categorized here under more than one design class, unlike in the case of the late Middle Kingdom series, in order to present all available Second Intermediate Period variations. Finally, it is argued below (§IIB 1, 3) that all royal-name and private-name scarabs of the Second Intermediate Period were manufactured in Egypt, most of them at Tell el-Dab`a.

§IIA 1. Design class 1 – Linear patterns

As in the case of late Middle Kingdom scarabs, the only subclass of design class 1 that is attested on Second Intermediate Period scarabs is design class 1E depicting floral motifs.

§IIA 1a. Design class 1E – floral motifs

Floral motifs on Second Intermediate Period scarabs comprise primarily as in the case of late Middle Kingdom scarabs, stems and buds of papyrus plants. The Second Intermediate Period excavated series include a very small number of examples displaying design class 1E showing very few variations, which during this period, unlike in the Middle Kingdom, always constitute a secondary motif.³⁵⁹ Scarabs bearing this design come from sites spread throughout the Nile valley, from the eastern Delta in the north to Kerma in the south.

³⁵⁶ E.g. Mayana (Petrie and Brunton 1924: Pl. 43), Esna (Downes 1974: 60-65, Groups 178, 269, 283, 320, 333), Buhen (Randall-MacIver and Woolley 1911: Pls. 56-57: 10043-44, 1055, 10072, 10075, 10083).

³⁵⁷ As for example in the case of the Tell el-Maskhuta scarabs discussed above, and sealings from Kerma made by late Middle Kingdom heirloom scarabs (Gratien 1991; 1998).

³⁵⁸ The scarabs from Koptos were not discussed above since most were bought at the site and none of them come from a clear context.

³⁵⁹ The only exception is a scarab from Tell el-Maskhuta (**Appendix Pl. 2: 4**) that has no parallel in the Egyptian excavated series and is more likely a Canaanite scarab. Unfortunately no photograph of the back is available. The examples from Harageh (Engelbach 1923: Pl. 21: 172), Aniba (Steindorff 1937: Pl. 55:91), and Semna (Dunham and Janssen 1960: Pl. 123: 6) displaying the design as dominant motif date from the early 18th Dynasty. An early 18th Dynasty date should also be attributed to the examples from Tell el-Ajjul presented in Tufnell 1984: Pl. 3: 1095, 1098, 1101, 1102 (below, §IVA 1a; See also Keel 1997: 167-431, nos. 183, 748, 810, 964).

Although not occurring as a dominant motif, design class 1E is discussed here because particular patterns occurring on Second Intermediate Period scarabs have chronological implications. The two most common variations of the design on Second Intermediate Period scarabs constitute the three-stem papyrus plant and two out-curved papyrus stems flanking a central motif. Both variations are attested only on a small number of examples in the Egyptian/Nubian Second Intermediate Period excavated series. The three-stem papyrus plant occurs on five examples from Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 38; Petrie 1906: Pl. 7: 8-9, Pl. 9: 148, 170), one example from Tell el-Dab`a (Mlinar 2001, no. 607 (strata E/1-D/3), one example from Hu (Petrie 1901: Pl. 41: 16), and one example from Saï island (Gratien 1986: Fig. 286: Iii). Two stems flanking a central motif occur on three examples from Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 37, 38; Petrie 1906: Pl. 9: 128), one from Tell el-Dab`a (Mlinar 2001, no. 604), three from Mostagedda (Brunton 1937: Pl. 69: 26, 54, 55), one from Qau (Brunton 1930: Pl. 19: 68), one from Esna (Downes 1974: 62, Group 221, No. 7), one from Buhen (Randall-MacIver and Woolley 1911: Pl. 96: 10745), and one from Kerma (Reisner 1923: Pls. 41-42 II: 62). Both variations are also found in the Palestinian excavated series (Tufnell 1984: Pls. 2-3).

The number of examples bearing design class 1E in the Palestinian series is notably larger than in the Egyptian Second Intermediate Period series, especially in the case of the three-stem papyrus motif (Tufnell 1984: Pl. 3). This is also indicated in the parallels presented by Mlinar for the Tell el-Dab`a scarab bearing the three-stem papyrus, and her distribution map of the motif (Mlinar 2001: 373-75). Many of the Palestinian examples bearing design 1E can be quite safely defined as Canaanite productions based on particular designs or features (below, §IIIA 1a, §IVA 1a). Some, however, remain inconclusive, both in the Palestinian and in the Egyptian/Nubian series. A possible Egyptian origin is suggested here for two cowroids from Tell el-Yehudiyeh (**Pl. 32: 1-2**), two scarabs from the site displaying two papyrus plants flanking a branch (**Pl. 32: 3-4**), a cowroid from Mostagedda (**Pl. 32: 5**), the scarab from Saï Island (**Pl. 32: 6**), and the scarab from Kerma (**Pl. 32: 8**). These examples display patterns that are not typical of Canaanite scarabs. One of the Tell el-Yehudiyeh cowroids and the scarab from Saï depict the motif with a typical late Middle Kingdom variation of the single line loop (above, §IA 6a2), which is not known to occur on Canaanite scarabs. Moreover, the cowroid from Mostagedda depicts the hieroglyph *r*, a feature suggesting Second Intermediate Period Egyptian origin (below, design class 3B5). The same feature occurs on the Kerma scarab and on an unprovenanced cowroid in the Basel collection depicting design class 1E (**Pl. 32: 7**). The Egyptian origin of the Basel cowroid is indicated also by the type of cowroid, which frequently bears the prenomen ^c3-*wsr-r*^c of King Apophis (Tufnell 1984: Pl. 64: 3523-27; see design class 3A4).

The small number of examples bearing design class E1 in the Egyptian/Nubian excavated series probably reflects not only the diminishing popularity of this Middle Kingdom motif but also the small number of Second Intermediate Period excavated scarabs compared with the late Middle Kingdom corpus. This seems to be the case also with other Middle Kingdom designs (below).

The chronological significance of design 1E lies in particular patterns of the three-stem papyrus motif, which occur on Second Intermediate Period scarabs but are completely absent in the early and late Middle Kingdom series. These patterns depict the three-stem papyrus above the central base motif (e.g. Petrie 1906: Pl. 7: 8-9),³⁶⁰ or above and below it flanking it in symmetric opposition (**Pl. 32: 1-2, 6**). Both variations are absent in the surviving corpus of Middle Kingdom scarabs, though the former pattern, displaying the three-stem papyrus above the central motif probably developed from late Middle Kingdom designs (**Pl. 1: 14-15, 24-25, 29-30, 37**). A Canaanite origin for both patterns is indicated by the fact that both are first attested on Canaanite scarabs in the early Palestinian series.³⁶¹ The complete absence of the pattern displaying the motif in symmetric opposition on Middle Kingdom scarabs argues against the late Middle Kingdom date previously suggested for the *hnp-n-r*^c sealings from Nubt (Ben-Tor 1997:175). A Second Intermediate Period date and a most likely Canaanite origin for the Nubt sealings is further indicated by a parallel from Tell el-Far`ah (S) (Petrie 1930: Pl. 10: 73). The back type of the Tell el-Far`ah scarab and the branches decorating it clearly date the scarab to the Second Intermediate Period (below).

Lotus flowers are extremely rare in the Second Intermediate Period Egyptian series, occurring only on isolated examples (**Pl. 32: 9-11**). The branch, a floral motif that is not attested on Middle Kingdom scarabs is occasionally found on Second Intermediate Period scarabs (**Pl. 32: 3-4, 12**). Originally a Canaanite motif (Keel 1995a: 164, § 433), the branch is attested on Canaanite scarabs as well as on Second Intermediate Period royal-name scarabs (be-

³⁶⁰ This pattern is common on Canaanite scarabs (below, §IIIA 1a) but is not attested on any example that can be assigned a Second Intermediate Period Egyptian origin.

³⁶¹ E.g. at Megiddo (Loud 1948: Pl. 149: 50); Jericho (Tufnell 1984: Pl. 3: 1076, 1078); Tel Aviv Harbor (Tufnell 1984: Fig. 16: 6). See below, §IIIA 1a.

low §IIB 1), the latter indicating that it was adopted on scarabs manufactured in Egypt during this period. Thus, the few design scarabs displaying this motif in the Egyptian/Nubian series are not necessarily Canaanite imports.³⁶²

§IIA 2. Design class 2 – Scrolls and spirals

Even a casual glance over the Second Intermediate Period Egyptian/Nubian series reveals a notable decrease in designs comprising scrolls and spirals compared with the late Middle Kingdom series. Moreover, a significant number of the examples that do occur in the Second Intermediate Period series constitute late Middle Kingdom heirlooms.³⁶³

The number of examples that do not display Middle Kingdom or New Kingdom characteristics is very small. These include both single and interlocking scrolls (Tufnell's subclasses 2A and 2B) attesting to the continuation of both subclasses into the Second Intermediate Period. As in the case of design class 1E, the distribution of scarabs bearing design class 2 is attested from the eastern Delta in the north to Kerma in the south.

§IIA 2a. Design class 2A – Scrolls and spirals, unlinked

Examples displaying unlinked scrolls in the Second Intermediate Period series comprise a small group of scarabs and cowroids. They include one example from Tell el-Yehudiyeh (Pl. 32: 13), three from Tell el-Dab'a (Pl. 32: 14-16),³⁶⁴ two from Matmar (Pl. 32: 17-18),³⁶⁵ three from Qau (Pl. 32: 19-21), four from Aniba (Pl. 32: 22-25), one from Debeira³⁶⁶ (Pl. 32: 26), two from Mirgissa (Pl. 32: 27-28), two from Semna (Pl. 32: 29-30), and one from Ukma (Pl. 32: 31).

In contrast to the numerous variations of design class 2A in the late Middle Kingdom series (above, §IA 2a), the Second Intermediate Period series display very few patterns of unlinked scrolls, depicting almost exclusively S and Z-shaped scrolls. Three main patterns are found on Second Intermediate Period scarabs: 1. One S or Z scroll covering the entire base surface (Pl. 32: 16, 19-21, 24, 27, 29).³⁶⁷ 2. One S or Z scroll in combination with other motifs (Pl. 32: 14-15, 17-18, 25-26, 28, 30, 32). 3. Three scrolls displayed one above the other (Pl. 32: 13, 23) – the latter depicting also C scrolls. The first and third patterns are not attested in the late Middle Kingdom corpus, yet both occur on early Middle Kingdom examples from the Montet Jar (Tufnell 1984: Pl. 4: 1116-17, 1123, 1125, 1130). Patterns depicting an S or Z scroll in combination with other motifs probably developed from late Middle Kingdom patterns though most depict variations that do not occur on late Middle Kingdom scarabs.

All three patterns are attested in larger numbers in the Palestinian series (Tufnell 1984, Pl. 4: 1131-60), arguing for a likely Canaanite origin for the examples found in Egypt and Nubia. Unfortunately no conclusive evidence is available to confirm it and the few examples found in the Egyptian/Nubian series are presented here as possible Egyptian products. The only pattern that can be assigned an Egyptian Second Intermediate Period origin is ironically not found in the Egyptian/Nubian excavated series, but occurs on a scarab from Tell el-`Ajjul (Pl. 32: 32). This particular pattern depicts a Z scroll at the side of another motif, both flanked by *nb* at the bottom and *h^c*, a winged sun disk or lotus flower at the top. This pattern is found on royal-name scarabs bearing the throne name of King Apophis (Tufnell 1984: Pl. 62: 3439-3441), suggesting an Egyptian origin, and a late Second Intermediate Period date (below, design class 3A3, and 3A4).³⁶⁸

§IIA 2b. Design class 2B – Scroll and spirals, interlocking

Designs depicting interlocking spirals occur in the Egyptian/Nubian series on an even smaller number of examples than those depicting unlinked scrolls (design class 2A). The small corpus comprises two examples from Tell el-

³⁶² An exception is the design depicting a branch on the entire surface of the base (e.g. Naville and Griffith 1890: Pl. 10: 43; Petrie 1906: Pl. 9: 187 from Tell el-Yehudiyeh), which is a Canaanite motif (Keel 1995a: 164, § 433; below §IVA 1a) that does not seem to appear on scarabs manufactured in Egypt during this period.

³⁶³ See e.g. at Tell el-Yehudiyeh in Naville and Griffith 1890: Pl. 10: 48; Petrie 1906: Pl. 9: 109, 110, 127; Tufnell 1978: Fig. 1: 1, Fig. 2: 20.

³⁶⁴ None come from a stratified context.

³⁶⁵ Brunton 1948: Pl. 43: 9, 12 most probably date from the early Middle Kingdom considering parallels from the Montet Jar (Ward 1978a: Pl. 9: 248-249).

³⁶⁶ One of the Middle Nubian sites in Lower Nubia.

³⁶⁷ An example depicting this pattern from group V at Jericho (Kirkbride 1965: Fig. 299: 19) displays a typical back of the early workshop at Tell el-Dab'a (Mlinar's type III), which argues for the Tell el-Dab'a origin of this design in the final phase of the Middle Kingdom.

³⁶⁸ See Keel 1997: 106-107, nos. 2, 3, 5.

Maskhuta (Pl. 32: 33 = Appendix Pl. 2: 7),³⁶⁹ one from Matmar (Pl. 32: 34), two from Qau (Pl. 32: 35-36), one from Hu (Pl. 32: 37), one from Aniba (Pl. 32: 38), two from Buhen (Pl. 32: 39-40), one from Mirgissa (Pl. 32: 41), one from Semna (Pl. 32: 42), one from Ukma (Pl. 32: 43), and one from Kerma (Pl. 32: 44). The patterns occurring on these scarabs and cowroids are simpler and less elaborate than most late Middle Kingdom patterns though clearly inspired by them. As in the case of design class 2A, design class 2B is well attested in the Palestinian series in a much larger corpus than in the Egyptian/Nubian series (Tufnell 1984: Pl. 5: 1170-1216). This distribution may suggest a Canaanite origin for most examples; however, as in the case of design class 2A, there is no conclusive evidence to confirm it and the few examples attested in the Egyptian/Nubian series are presented here as possible Egyptian products. The most likely Egyptian origin can be assigned the pattern depicting two interlocking spirals flanked by so-called "Hyksos sides" (Pl. 32: 36), which commonly flank royal names on Second Intermediate Period scarabs (Tufnell 1984: Pls. 60-61), and thus argue for an Egyptian origin (below, §IIB 1).

§IIA 3. Design class 3 – Egyptian signs and symbols

Like other late Middle Kingdom designs that continue into the Second Intermediate Period, design class 3 shows a notable decline in numbers and variations in the Second Intermediate Period series. The great popularity of design class 3 in the Palestinian series (Tufnell 1984: Pls. 7-20) reflects primarily the adaptation of Egyptian signs and symbols on Canaanite scarabs (below, §IIA 3, §IVA 3). Tufnell presents the subclasses of design class 3 in the Palestinian series without any reference to the Egyptian Second Intermediate Period series (Tufnell 1984: 117-24, Pls. 7-20). The discussion here refers to examples bearing design class 3 in the Egyptian/Nubian series that display characteristics not found on Middle Kingdom or New Kingdom scarabs. An attempt is made to distinguish those manufactured in Egypt from Canaanite imports.

§IIA 3a. Design class 3A – Monograms and varia

As in the case of the late Middle Kingdom series (above, §IA 3a), the discussion here refers to all four subclasses of design class 3A, including those categorized under varia (design class 3A3).

§IIA 3a1. Design class 3A1 – sign of union, *sm3-t3wy*

The popularity of design class 3A1 in the late Middle Kingdom series was demonstrated above (§IA 3a1). In contrast, the number of scarabs bearing this design in the Second Intermediate Period series is very small, though their distribution spreads from the eastern Delta to Lower Nubia. Two examples were found at Tell el-Dab'a (Pl. 33: 1-2),³⁷⁰ two at Tell el-Yehudiyeh (Pl. 33: 3; Petrie 1906: Pl. 9: 112), two at Qau (Pl. 33: 4; Brunton 1930: Pl. 19: 35), one at Koptos (Pl. 33: 5),³⁷¹ one at Aniba (Pl. 33: 6), and one at Buhen (Pl. 33: 7). This small group, when compared with the large number of examples in the Palestinian series,³⁷² may imply a Canaanite origin for the examples found in the Egyptian/Nubian series. Yet, considering the lack of conclusive evidence, the possibility of Egyptian Second Intermediate Period productions should not be ruled out and those that do not display distinctive Canaanite characteristics are presented here as possible Egyptian products.

The pattern occurring on the two examples from Tell el-Dab'a, depicting the sign of union between two *ḥ* signs (Pl. 33: 1-2), continues a late Middle Kingdom design (Pl. 5: 37, 42, 44, 56, 58). As demonstrated above (§IA 3a1), the late Middle Kingdom examples usually display the sign of union in combination with other motifs – mainly hieroglyphs and occasionally spirals, or in symmetric opposition (Pl. 5: 32-63). The Second Intermediate Period examples from Egypt and Nubia also display the sign of union in combination with other designs, some of them like the sedge and the bee (*nsu-bit*),³⁷³ and the *ḥ* formula,³⁷⁴ are not attested on Middle Kingdom scarabs. A highly likely Canaanite origin for the combination with the sedge and the bee is indicated by its occurrence on an early Canaanite scarab from Jericho (Tufnell 1984: Pl. 11: 1527). As demonstrated above (§IA 3b2), the *nsu-bit* motif is not attested on Egyptian design scarabs of the late Middle Kingdom, but occurs on Middle Bronze Canaanite scarabs (Tufnell 1984: Pl. 11, and below, §IIIA 3b2, §IVA 3b2). The evidence suggests that the *nsu-bit* motif,

³⁶⁹ The other example (Appendix Pl. 2: 13) depicts the scrolls in combination with a cross pattern, which argues for the Canaanite origin of the scarab (below, design class 5). An additional example from the site (Appendix Pl. 2: 3) displays late Middle Kingdom characteristics.

³⁷⁰ The former comes from stratum E/1, the latter from an unclear context.

³⁷¹ Remains of a 17th Dynasty temple were found at Koptos (Petrie 1896: Pls. 6-8). The scarabs from Koptos do not have a clear context and some were bought at the site (Petrie 1896: 24). They include examples from the early Middle Kingdom through the New Kingdom (Petrie 1896: Pls. 24-25), a handful among them displaying Second Intermediate Period characteristics (Petrie 1896: Pls. 24-25: 8, 82, 83, 134, 140, 160, 161).

³⁷² For the Canaanite imitations of this design see below (§IIIA 3a1, §IVA 3a1).

³⁷³ From Tell el-Yehudiyeh (Petrie 1906: Pl. 9: 112).

³⁷⁴ From Qau (Brunton 1930: Pl. 19: 35).

which is found on early Middle Kingdom scarabs (Ward 1978a: Pl. 12: 301-302), does not reoccur on Egyptian design scarabs until the 18th Dynasty (See design class 3B2).

The particular pattern displaying the sign of union in combination with the ^c*nr*^c formula on the scarab from Qau, which divides the base surface into three horizontal fields with ^c*nr*^c at the center, has close parallels on early Canaanite scarabs (Loud 1948: Pl. 149: 50; Tufnell 1984: Fig. 16: 6). The latter, though not depicting the sign of union, argue for the Canaanite origin of this particular ^c*nr*^c pattern (below, §IIIA 1a, §IIIA 3c). The origin of the examples displaying the sign of union in symmetric opposition from Aniba and Buhen (Pl. 33: 6-7), whether Canaanite or Egyptian is inconclusive.

A particular helpful stylistic detail distinguishing Second Intermediate Period examples of design class 3A1 from those of the late Middle Kingdom consists of small horizontal lines filling the space inside the out-curved stem of the papyrus plants that form part of the sign of union (Pl. 33: 2, 5, 7). These lines are not found on any of the known Middle Kingdom scarabs displaying class 3A1.

§IIA 3a2. Design class 3A2 – *nbty* motif

The early Middle Kingdom origin of most scarabs bearing the *nbty* motif, and the considerable decrease in the popularity of the motif on late Middle Kingdom scarabs, are discussed above (§IA 3a2). The Second Intermediate Period excavated series indicate that the *nbty* motif does not continue into the Second Intermediate Period in Egypt or in Palestine. The scarabs presented by Tufnell as bearing design class 3A2 (Tufnell 1984: Pl. 7) date from the Middle Kingdom³⁷⁵ or they do not display the *nbty* motif. Examples displaying the motif in the Second Intermediate Period series in Egypt and Nubia are without exception of early or late Middle Kingdom date.³⁷⁶ The three scarabs from Tell el-Dab`a bearing the motif come from strata G-F and display features of the early Tell el-Dab`a workshop (types II and III) dating from the late Middle Kingdom (Mlinar 2001, nos. 5, 9, 207).

§IIA 3a3. Design class 3A3 – *Varia*

The Second Intermediate Period series display only isolated examples with patterns of Egyptian signs and symbols that cannot be categorized under Tufnell's subclasses of design class 3. This minute group is of no significance except for particular designs found also on royal-name scarabs of King Apophis (see also design class 2A above), which argue for their Egyptian origin and late Second Intermediate Period date. These designs display, like the Apophis royal-name scarabs and the examples of design class 2A noted above, a central motif flanked by *nb* at the bottom and ^h*l*^c, winged sun disk or lotus flower at the top. Only three examples were found in the Egyptian/Nubian excavated series, one at Matmar (Pl. 33: 8), one at Esna (Pl. 33: 9), and one at Aniba (Pl. 33: 10) all of them displaying three vertical signs as the central motif. The Matmar and Esna scarabs depict a *nfr* flanked by eight-shaped signs, and the Aniba scarab depicts a *nfr* flanked by stylized *s3* signs. An example with three stylized *s3* signs comes from Tell el-`Ajjul (Pl. 33: 11). The eight-shaped sign is also found on royal-name scarabs of Apophis (Tufnell 1984: Pl. 62: 3445, 3448), and a pseudo royal-name scarab of the late Second Intermediate Period (Pl. 33: 12; see design class 3A4). The latter bears the design discussed above in association with design class 2A, except for the eight-shaped sign replacing the scroll.

§IIA 3a4. 3A4 – Horus hawk with *ntr* and other signs

The main motif constituting design class 3A4, depicting a falcon and a 90° angle is first attested in the early Palestinian series (Tufnell 1984: 118, and Pl. 9). The Canaanite origin of design class 3A4 was noted elsewhere (Ben-Tor 1997: 175-79) and is discussed in detail below (§IIIA 3a4). The occurrence of Egyptian Second Intermediate Period variations of the design was also noted elsewhere (Ben-Tor 1997: 179; 2004c: 34-35. Fig. 7; Ben-Tor et al 1999: 65), and it is this group that is categorized here under design class 3A4. The Egyptian/Nubian excavated series yielded only six examples bearing the design: one from Tell el-Maskhuta (Pl. 33: 13), one from cemetery K at Mayana (Pl. 33: 14), one from Aniba (Pl. 33: 15), one from Mirgissa (Pl. 33: 16), and one each from Debeira (Pl. 33: 17), and Dakka (Pl. 33: 18) in Lower Nubia. The number of unprovenanced examples in museum collections, a selection presented in Pl. 33: 19-31, suggests that the actual popularity of the design is not reflected in the poorly preserved excavated series.

Unlike the Canaanite variations of the design, which usually depict a falcon, and rarely an owl, the Egyptian Second Intermediate Period variations almost always depict an owl (Ben-Tor 1997: 175-79). The angle depicted on the Canaanite variations, interpreted by Tufnell as the sign *ntr*,³⁷⁷ is occasionally found on the Egyptian variations

³⁷⁵ Tufnell 1984: Pl. 7: 1297-1299, 1313.

³⁷⁶ E.g. Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 35; Petrie 1906: Pl. 9: 136), Aniba (Steindorff 1935: Pl. 31: 28, 31; Steindorff 1937: Pl. 56: 169), Debeira (Säve-Söderbergh 1989: Pl. 42: 170/17:1A).

³⁷⁷ See Keel 1997: 786-87, § 460 for other suggested interpretations of this ambiguous sign.

(Pl. 33: 14, 18-19, 26, 28, 32-33) but in most cases is replaced by the actual *ntr* sign (Pl. 33: 13, 16-17, 20-24, 27, 29-31, 35). The similarity between the Egyptian and Canaanite variations of the design made Tufnell include three Egyptian examples from Tell el-`Ajjul (Pl. 33: 32-34) among the Canaanite examples presented in her 1984 typology, unaware of the difference between them.³⁷⁸ The two groups, however, differ significantly apart from the variations noted above, also in the choice of signs associated with the main motif. While the Canaanite examples show no consistency whatsoever with regard to these signs and each scarab is different in this respect (see Tufnell 1984: Pl. 9), the Egyptian examples do not show such diversity. Moreover, many examples display a more or less fixed formula, which was associated by some scholars with the cult of Re and read as: *r^c 3 m ntr nb* 'Re who is great in every god' (Hornung and Staehelin 1976: 225, nos. 171-72; Ryholt 1997: 64).

Scarabs and cowroids bearing design class 3A4 exhibit a close similarity to royal-name scarabs and cowroids bearing the throne name of King Apophis, in terms of features as well as associated motifs. The distinctive type of cowroid associated with both groups³⁷⁹ frequently depicts variations of design class 3A4 or the throne name of Apophis enclosed in a cartouche and flanked by almost identical patterns of symmetrically arranged hieroglyphs.³⁸⁰ Moreover, the particular patterns noted above as associated with royal-name scarabs and cowroids of Apophis (see design classes 2A and 3A3) are also found on scarabs and cowroids bearing design class 3A4 (Pl. 33: 19, 32). The points of similarity between the two groups strongly argue for the Egyptian origin and late Second Intermediate Period date of the scarabs and cowroids discussed here under design class 3A4.

The possibility to interpret variations of design class 3A4 as meaningful Egyptian phrases was recently considered by Quirke who examined the initial occurrence of "phrase scarabs" in Egypt (Quirke 2004: 174-75). Noting the complete absence of phrases in the corpus of Middle Kingdom scarabs, Quirke attributes their initial occurrence to examples displaying variations of design class 3A4 in the late Second Intermediate Period, and suggests the following development: 1. Origin: late Middle Kingdom scarabs with royal names and symmetric amuletic signs. 2. Imitations: early Second Intermediate Period Canaanite scarabs with garbled sequences and deformed signs.³⁸¹ 3. Reinterpretation of these at the late Hyksos court in Tell el-Dab`a, towards the end of the Second Intermediate Period. He notes that unlike examples bearing the hieroglyphs *3 wsr r^c*, which bear the throne name of King Apophis, examples categorized here under design class 3A4 represent an Egyptian reinterpretation of the garbled Canaanite versions of hieroglyphs, which are now converted into meaningful phrases. Whether the hieroglyphs comprising the Egyptian variations of design class 3A4 represent meaningful phrases as suggested by Quirke is not entirely clear considering the lack of consistency in the variations of the formula,³⁸² but the possibility should not be ruled out.³⁸³

§IIA 3b. Design class 3B – Symmetric patterns

Symmetric patterns of hieroglyphs, which dominate the late Middle Kingdom series, continue into the Second Intermediate Period but the numbers and variations are notably reduced. Variations of design class 3B are also common in the Palestinian series (Tufnell 1984: 118-24, Pls. 9-20), reflecting the adaptation of symmetric patterns of hieroglyphs on Canaanite scarabs. The variations of design class 3B in the Second Intermediate Period Egyptian/Nubian series include among some late Middle Kingdom heirlooms and Canaanite imports examples that can be assigned an Egyptian Second Intermediate Period origin. As in the case of all other late Middle Kingdom designs that continued into the Second Intermediate Period, however, the origin of some examples, whether Egyptian or Canaanite, remains inconclusive.

§IIA 3b1. Design class 3B1 – Cobras

In contrast to the rare occurrence of design class 3B1 in the late Middle Kingdom series, the four subclasses of the design are well represented in the Palestinian series (Tufnell 1984: Pls. 9-10), reflecting primarily its popularity on Canaanite scarabs (below, §IIIA 3b1, §IVA 3b1). The Second Intermediate Period series yielded a much smaller

³⁷⁸ See also Ward 1992a: 156, No. 81. This scarab from Tell Jerishe in Israel (Giveon 1988: 74-75) is an Egyptian Second Intermediate Period import (Pl. 33: 35).

³⁷⁹ This type of cowroid is associated also with other designs (below).

³⁸⁰ Compare Hall 1913: 256-58, nos. 2562, 2564, 2568, 2574 with Tufnell 1984: Pl. 64: 3523-3525, and Petrie 1925: Pl. 11: 612, 617 with Tufnell 1984: Pl. 64: 3527.

³⁸¹ The scarabs bearing design class 3A4 in the early Palestinian series, which constitute one of the earliest groups of Canaanite scarabs (below, §IIIA 3a4).

³⁸² E.g. the occurrence of additional signs such as *mn* (Pl. 33: 22, 25, 29, 34), the alternation of the signs *nb* and *r* (Pl. 33: 18-19, 21, 25, 35), and the frequent enclosing of the 'formula' in a cartouche (Pl. 33: 15-16, 19-20, 22-24, 29, 31).

³⁸³ This question concerns also examples displaying identical designs and features bearing the hieroglyphs *n k3 r^c* (Hornung and Staehelin 1976: 221, nos. 152, 153; Tufnell 1984: Pl. 64: 3521, 3522), which do not seem to represent a royal name.

number of examples and variations of design class 3B1 the majority of them most likely of Egyptian Second Intermediate Period origin.

§IIA 3b1a. Design class 3B1c – Cobras confronted

Out of Tufnell's four subclasses of design class 3B1 only subclass 3B1c – cobras confronted – is attested in the Second Intermediate Period Egyptian/Nubian excavated series, distributed between the eastern Delta and lower Nubia. Two examples come from Tell el-Maskhuta (**Appendix Pl. 1: 1, 9**),³⁸⁴ one from Mayana (**Pl. 33: 36**), one from Matmar (**Pl. 33: 37**), one from Mostagedda (**Pl. 33: 38**), two from Qau (**Pl. 33: 39-40**), one from Nubt (**Pl. 33: 41**), two from Esna (**Pl. 33: 42-43**), one from Aniba (**Pl. 33: 44**), four from Debeira (**Pl. 34: 1-4**), one from Semna (**Pl. 34: 5**), and one from Ukma (**Pl. 34: 6**). A cowroid from Tell el-`Ajjul bearing the design displays distinctive Second Intermediate Period characteristics (below) and is therefore presented here (**Pl. 34: 7**).

The confronted cobras are always depicted in symmetric opposition, usually at the top of the base surface above other paired signs, in three main patterns: 1. Columns of hieroglyphs comprising paired signs flanking a central sign (**Pl. 33: 37, 41-42, 44, Pl. 34: 2-3, 5**). 2. Two groups of paired signs flanking a central sign, depicted above and below a winged sun disk dividing the base surface into two sections (**Pl. 33: 38, 40, Pl. 34: 1, 4, 6**). 3. In longitudinal setting of symmetric hieroglyphs (**Pl. 33: 36, 39, 43, Pl. 34: 7**).

Except for the two examples from Tell el-Maskhuta, the scarabs and cowroids listed above display characteristics that argue for their Second Intermediate Period Egyptian origin. These include the sign *r*, which occurs on a significant number of examples, depicted either singly at the bottom (**Pl. 33: 36-38, 40, 41-44, Pl. 34: 1, 3, 5**), or at the center (**Pl. 34: 7**), or paired in symmetric opposition (**Pl. 33: 37, 41**), or both (**Pl. 33: 44**). The sign *r* occurs in similar symmetric patterns in association with a number of subclasses of design class 3B in the Egyptian Second Intermediate Period series (below), but it is extremely rare in the Palestinian series and is not attested on scarabs displaying distinctive Canaanite characteristics (Ben-Tor 2004c: 33). It occasionally alternates in identical patterns with the sign *nb* (**Pl. 33: 41, Pl. 34: 2**),³⁸⁵ an alternation that is also attested in Egyptian Second Intermediate Period variations of the *ḥnr* formula displaying the sign *nb* instead of *r* (below). The scarabs from Matmar (**Pl. 33: 37**) and Debeira (**Pl. 34: 2**) display the Canaanite form of the sign *k3* with a triangle on the vertical line (Ben-Tor 1997: 171, and Fig. 4), suggesting the adaptation of the latter on Egyptian Second Intermediate Period scarabs. A Second Intermediate Period Egyptian origin is also indicated for the cowroid from Qau (**Pl. 33: 39**), which is of the type associated with the name of King Apophis and with design class 3A4 (above).

The form of the winged sun disk dividing the base surface is also a distinctive characteristic of Second Intermediate Period Egyptian scarabs. The winged sun disk motif is extremely rare on late Middle Kingdom scarabs, the isolated published examples³⁸⁶ displaying it in a form that differs from that occurring on Second Intermediate Period scarabs (Ben-Tor 2004c: Fig. 4). The latter displays, however, a close similarity to the form of the sign occurring on early Canaanite scarabs, where it is also frequently depicted at the center of the base,³⁸⁷ suggesting a highly likely Canaanite origin for this particular design (Ben-Tor 2004c: 34-35). The form of the winged sun disk on early Canaanite scarabs, which is not attested on Middle Kingdom scarabs, was probably inspired from Syrian cylinder seals (Teissier 1996: 95-98). The early Canaanite scarabs bearing the motif depict distinctive misrendered signs and pseudo hieroglyphs (Ben-Tor 1997: 168-75), which are completely absent from Egyptian Second Intermediate Period scarabs, making the two groups easily distinguished.

Another Second Intermediate Period characteristic occurring on some examples of design class 3B1 is the form of the sign *k3* depicted with two small horizontal lines connecting the two arms (**Pl. 33: 36, Pl. 34: 1, 5, 7**). This particular form of the sign is not found on Middle Kingdom scarabs, but occurs in association with a number of designs on scarabs of the Second Intermediate Period. It occurs in the Egyptian/Nubian series as well as the Palestinian series seemingly on both Egyptian and Canaanite scarabs, yet most examples depict the sign in association with designs suggesting an Egyptian origin. A cowroid depicting design 3B1c in longitudinal setting from Tell el-`Ajjul can be securely assigned a Second Intermediate Period Egyptian origin considering the type of cowroid (be-

³⁸⁴ Both display characteristics that argue for their Canaanite origin (above).

³⁸⁵ Symmetric patterns with *nb* signs occur on late Middle Kingdom scarabs, usually in association with designs 3B3b, 3B4, and 3B7 (e.g. Petrie 1896: Pl. 24: 7 from Koptos; Tufnell 1984: Pl. 13: 1590 from Ruweise; Mlinar 2001, no. 107 from Tell el-Dab`a).

³⁸⁶ The excavated series yielded a scarab from Fadrus in lower Nubia (Säve-Söderbergh and Troy 1991: Pl. 15: 185/354: 11), a scarab from Semna (Dunham and Janssen 1960: Pl. 123: 2), and a scarab from Ukma (Vila 1987: Pls. 5-6: 131/12). An unprovenanced oval plaque bearing the prenomen of Amenemhat III, which is most probably a contemporaneous example (Pl. 20: 29), depicts four winged sundisks surrounding the cartouche, displaying the same late Middle Kingdom form attested on the three examples from the excavated series.

³⁸⁷ E.g. Megiddo (Loud 1948: Pl. 149: 18); Tel Aviv Harbor (Tufnell 1984: Fig. 16: 4); Hazor (Tufnell 1984: Fig. 17: 25); Jericho (Tufnell 1984: Pl. 9: 1472, 1477); Tell el-`Ajjul (Tufnell 1984: Pl. 9: 1488, 1489).

low, §IIB 1), the winged sun disk depicted at the bottom, and the typical Second Intermediate Period form of the *k3* (Pl. 34: 7).

§IIA 3b2. Design class 3B2 – King of Upper and Lower Egypt, *nsu-bit*

As demonstrated above (§IA 3b2), the sedge and the bee (*nsu-bit*) motif is not attested on Egyptian design scarabs of the late Middle Kingdom, and the evidence suggests that this is also the case with Egyptian scarabs of the Second Intermediate Period. Nine scarabs bearing the motif come from the Egyptian/Nubian excavated series, two from Tell el-Dab`a (Mlinar 2001, nos. 803 and 901, from stratum D/2), one from Tell el-Yehudiyeh (Petrie 1906: Pl. 9: 112), one from Qau (Brunton 1930: Pl. 4:5), one from Semna (Dunham and Janssen 1960: Pl. 120: 25), two from Aniba (Steindorff 1937: Pl. 56: 123, 131), one from Mirgissa (Vercoutter 1975: 306, Fig. 8b), and one from Ukma (Vila 1987: Pls. 5-6: 102/2). The designs associated with the motif on these scarabs, however, argue for a Canaanite origin for all nine examples based on parallels in the Palestinian series. These designs include the gold sign in longitudinal setting (design class 3B6) (Tufnell 1984: Pl. 11: 1533, 1538, 1546, 1547), symmetric arrangements of hieroglyphs (Tufnell 1984: Pl. 11: 1528-1532, 1535-1537, 1541, 1544), a pseudo- cartouche (Tufnell 1984: Pl. 11: 1542, 1543), and the sign of union (above design class 3A1). A Canaanite origin is further indicated for examples depicting the *swt* plant in inverted position.³⁸⁸

The complete absence of the *nsu-bit* motif on late Middle Kingdom scarabs³⁸⁹ argues that the inspiration for its occurrence on Middle Bronze Canaanite scarabs (Tufnell 1984: Pl. 11; below, §IIIA 3b2) should be considered in other media. As noted above (design class 3A1), the evidence suggests that the motif, which is attested on early Middle Kingdom scarabs (Ward 1978a, Pl. 12: 301-302), does not reoccur on Egyptian design scarabs until the early 18th Dynasty.³⁹⁰

§IIA 3b3. Design class 3B3 – Red crowns

The variations of design class 3B3 in the Second Intermediate Period excavated series display distinct changes from those of the late Middle Kingdom series, especially in the popularity of particular subclasses. As demonstrated above (§IA 3b3), the late Middle Kingdom series display four out of Tufnell's five subclasses of design class 3B3.³⁹¹ The Second Intermediate Period Egyptian/Nubian series exhibit three of Tufnell's five subclasses, two of them including examples manufactured in Egypt (below). The five subclasses are defined after Tufnell as types a – e.

Type a – red crowns addorsed on *nb*

This subclass of design 3B3, which is quite popular in the late Middle Kingdom series (above, §IA 3b3), is not attested on a single example in the Second Intermediate Period Egyptian/Nubian series. Its occurrence in the Palestinian series (e.g. Tufnell 1984: Pl. 11) is exclusively on Canaanite scarabs or late Middle Kingdom heirlooms (below, §IIIA 3b3, §IVA 3b3).³⁹² The evidence therefore suggests that addorsed red crowns on *nb*, which probably developed from variations of the early Middle Kingdom *nbtj* motif (above, §IA 3a2) do not continue on Egyptian scarabs of the Second Intermediate Period.

Type b – red crowns addorsed

Red crowns addorsed constitute the most commonly attested subclass of design 3B3 in the Second Intermediate Period excavated series. As in the case of most late Middle Kingdom scarabs bearing this design, the addorsed red crowns are depicted in symmetric opposition flanking a central motif. Eighteen examples come from the Second Intermediate Period series, three from Tell el-Dab`a (Mlinar 2001, nos. 507 and 519 from stratum E/1, and 901 from stratum D/2), six from Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 28, 34; Petrie 1906: Pl. 7: 8, 9, Pl. 9: 128, 129), two from Qau (Brunton 1930: Pl. 19: 14, 35), one from Hu (Petrie 1901: Pl. 41: 14), two from Esna (Downes 1974: 60, 65, Group 140: 2, Group 305: 2), one from Aniba (Steindorff 1937: Pl. 56: 103), one from Debeira (Säve-Söderbergh 1989: Pl. 42: 170/37:10b),³⁹³ one from Semna (Dunham and Janssen 1960: Pl. 120: 25),³⁹⁴ one from Ukma (Vila 1987: 231, no. 88/4),³⁹⁵ and one from Kerma (Reisner 1923: Pls. 40-41 II: 58). Nine of

³⁸⁸ Aniba (Steindorff 1937: Pl. 56: 123); Mirgissa (Vercoutter 1975: 306, Fig. 8b); Tell el- Far`ah (S) (Tufnell 1984: Pl. 11: 1532); Tell el-`Ajjul (Tufnell 1984: Pl. 11: 1540, 1547).

³⁸⁹ The royal title *nsu-bit* is also absent from late Middle Kingdom royal-name scarabs, which bear the titles *ntr nfr* or *nb t3wy* above the throne name (Tufnell 1984: Pls. 53-56).

³⁹⁰ E.g. Newberry 1906: Pl. 41: 25.

³⁹¹ Tufnell's five subclasses are based mainly on the Palestinian series, reflecting primarily their popularity on Canaanite scarabs (below, §IIIA 3b3, §IVA 3b3).

³⁹² For late Middle Kingdom heirlooms see e.g. Tufnell 1984: Pl. 11: 1550, 1551.

³⁹³ Bearing also two confronted cobras (above).

³⁹⁴ Depicting also the *nsu-bit* motif (above).

³⁹⁵ Depicting also confronted cobras (above, §IIA 3b1a).

these examples display characteristics that argue for a most likely Canaanite origin. These include the scarabs from Tell el-Dab`a and Semna bearing the *nsw-bit* motif (Mlinar 2001, no. 901; Dunham and Janssen 1960: Pl. 120: 25),³⁹⁶ four of the Tell el-Yehudiyeh scarabs: two displaying the three-stem papyrus (Petrie 1906: Pl. 7: 8-9),³⁹⁷ one displaying L-shaped crowns (Naville and Griffith 1890: Pl. 10: 28),³⁹⁸ and one displaying the Canaanite variation of the Hathor symbol (Naville and Griffith 1890: Pl. 10: 34; below, §IVA 10d2). The highly likely Canaanite origin of the particular design on one of the scarabs from Qau (Brunton 1930: Pl. 19: 35), displaying the addorsed red crown with the sign of union and the c^{ur} formula, was noted above (design class 3A1). The combination of the addorsed red crowns and the c^{ur} formula on the scarab from Aniba, also suggests a likely Canaanite origin (Tufnell 1984: Pl. 17).

Examples that can be assigned an Egyptian origin include the cowroid from Esna (**Pl. 34: 10**), which is of the type associated with King Apophis (above, design class 3A4).³⁹⁹ The Esna cowroid also displays the distinctive Second Intermediate Period form of the *k3* sign noted above (design class 3B1). The cowroid from Kerma (**Pl. 34: 9**), which is of similar shape and has a floral decoration on the back, has a close parallel at Tell el-Yehudiyeh on a cowroid of the Apophis type (Petrie 1906: Pl. 9: 114).⁴⁰⁰ An Egyptian origin is also suggested for the scarab from Tell el-Yehudiyeh depicting the crowns in combination with design class 1E (**Pl. 34: 11**), and the scarab from Hu depicting the sign *r* displaying also design class 3B1c (**Pl. 34: 8**). The Egyptian origin of the scarabs from Qau (**Pl. 34: 12**) and Ukma (**Pl. 34: 13**) depicting the winged sun disk and confronted cobras, and the scarab from Debeira (**Pl. 34: 15**) depicting confronted cobras, was discussed above (design class 3B1). The origin of the Tell el-Dab`a scarab depicting the design with design class 3B6 (**Pl. 34: 14**) is inconclusive.

Type c – red crowns confronted

In complete contrast to the popularity of this subclass in the late Middle Kingdom series (above, §IA 3b3), not a single example depicting confronted red crowns was found in the Second Intermediate Period Egyptian/Nubian excavated series. The almost complete absence of the motif also in the Palestinian series (Tufnell 1984: 119) suggests that it did not continue into the Second Intermediate Period except on isolated Canaanite scarabs.⁴⁰¹

Type d – red crowns addorsed 'L-shaped'

The complete absence of this design in the late Middle Kingdom series was demonstrated above (§IA 3b3), and its Canaanite origin is discussed below (§IIIA 3b3, §IVA 3b3). The Second Intermediate Period Egyptian/Nubian series yielded only isolated examples of addorsed L-shaped crowns, two from Tell el-Dab`a (Mlinar 2001, no. 516 from stratum E/1 and No. 1020 from unclear context), one from Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 28), and one from Aniba (Steindorff 1937: Pl. 55: 89).⁴⁰² The Canaanite origin of these examples is suggested by their small number and by their distribution mainly in the eastern Delta, where Canaanite imports are more likely to be found.

Type e – red crowns tête bêche

This design, which is attested only on isolated examples in the late Middle Kingdom series (above, §IA 3b3) gains in popularity during the Second Intermediate Period, as indicate the number of examples attested in the Palestinian series and the Egyptian/Nubian series. Fourteen examples displaying red crowns depicted tête bêche come from the Egyptian/Nubian excavated series: six from Tell el-Dab`a,⁴⁰³ two from Tell el-Maskhuta (**Appendix Pl. 1: 14-15**), one from Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 23), one each from Dakka (Firth 1915: Pl. 41: 71) and Barsinishei (Firth 1927: Pl. 36: 199) in Lower Nubia, one from Aniba (Steindorff 1935: Pl. 31: 25), one from Mirgissa (Vercoutter 1976: Fig. 5: 11), one from Ukma (Vila 1987: 236: 189/18), and one from Kerma (Reisner 1923: Pls. 40-41 II: 63). Three of these examples display designs that argue for a Canaanite origin: both scarabs from Tell el-Maskhuta, one depicting a kneeling figure (**Appendix Pl. 1: 14**; below §IVA 10c) and one depicting the Canaanite form of the sign *k3* (**Appendix Pl. 1: 15**; Ben-Tor 1997: 171-73, Fig. 4), and the scarab from Tell el-Dab`a bearing the formula $\text{h}^{\text{tp-n-r}}$ (Mlinar 2001, no. 1076; below §IIIA 3c).

³⁹⁶ Above, design class 3B2.

³⁹⁷ Above, design class 1E.

³⁹⁸ Below, design 3B3 Type d.

³⁹⁹ Though occasional Canaanite imitations of this type of cowroid are attested (below, §IVB).

⁴⁰⁰ Two examples of this type of decorated cowroid were found at Tell el-`Ajjul (Keel 1997: 211-259, nos. 321, 458), both being Egyptian imports (below, §IIB).

⁴⁰¹ A single example is known from Tell el-`Ajjul (Tufnell 1984: Pl. 12: 1569).

⁴⁰² The shape of the base suggests a cowroid, but there is no record of the back.

⁴⁰³ Mlinar 2001, no. 509 from stratum E/1, No. 602 from strata E/1-D/3, and Nos. 1006, 1030, 1076 from unclear contexts at the site displaying Second Intermediate Period features (below §IIB); Mlinar 2002: No. 8626. An additional example from the site (Mlinar 2001, no. 511) comes from stratum E/1 but it is not considered here as it displays Tell el-Dab`a back type III (**Pl. 31: 16**), which argues for its likely production at the site in the late Middle Kingdom (Mlinar in Bietak et al. 2001: 178, Fig. 6).

The example from Ukma (**Pl. 34: 25**) is a cowroid of the type associated with King Apophis (above, design class 3A4), suggesting a likely Egyptian origin and a late Second Intermediate Period date. An Egyptian origin may also be considered for five of the Tell el-Dab`a scarabs (**Pl. 34: 16-19, 27**), and one of the Tell el-Yehudiyeh scarabs (**Pl. 34: 20**), which do not display distinctive Canaanite characteristics. The origin of the scarabs from Dakka (**Pl. 34: 21**), Barsinishei (**Pl. 34: 22**), Aniba (**Pl. 34: 23**), Mirgissa (**Pl. 34: 24**), and Kerma (**Pl. 34: 26**), displaying variations of the ϵ_{nr} formula remains inconclusive as this formula, which originated on early Canaanite scarabs was later imitated on Second Intermediate Period Egyptian scarabs (see design class 3C below).

§IIA 3b4. Design class 3B4 – Horus eyes (*wd3t*)

This popular late Middle Kingdom design (above, §IA 3b4) is attested in a much smaller number of examples in the Egyptian/Nubian Second Intermediate Period series. Moreover, some of the latter display characteristics that define them as late Middle Kingdom heirlooms.⁴⁰⁴ The popularity of the design in the Palestinian series (Tufnell 1984: 120, Pl. 13) reflects primarily its adaptation on Canaanite scarabs (below, §IIIA 3b4, §IVA 3b4). However, examples found at Tell el-`Ajjul displaying Egyptian Second Intermediate Period characteristics like the sign *r* or the Egyptian Second Intermediate Period form of the sign *k3* (**Pl. 34: 28-34**), suggest that the poorly preserved Second Intermediate Period series do not reflect the actual popularity of the design on Egyptian scarabs of this period. Only six scarabs bearing design class 3B4, which do not display late Middle Kingdom characteristics, come from the Second Intermediate Period excavated series. These include two scarabs from Tell el-Dab`a (Mlinar 2001, no. 507 from stratum E/1 = **Pl. 34: 35**, and no. 901 from stratum D/2), one from Hu (**Pl. 34: 36**) one from Nubt (**Pl. 34: 37**),⁴⁰⁵ two from Aniba (Steindorff 1937: Pl. 56: 123, 131), and one from Semna (**Pl. 34: 38**).

As in the case of late Middle Kingdom scarabs, the *wd3t* eyes are displayed in pairs in symmetric patterns also on Second Intermediate Period scarabs. Some late Middle Kingdom patterns, like those depicting the eyes side by side as a pair at the top of the plinth, or in combination with spirals, are not attested on any of the Second Intermediate Period examples. The late Middle Kingdom pattern depicting *wd3t* eyes flanking a central sign occurs also on Second Intermediate Period scarabs (**Pl. 34: 34-37**), and the same is true for depictions of the eyes side by side as a pair, but Second Intermediate Period scarabs display them at the center of the plinth (**Pl. 34: 28-33, 38**). The Nubt scarab displays the eyes flanking a central sign in longitudinal setting as the main motif (**Pl. 34: 37**), a pattern that is not attested on late Middle Kingdom scarabs. An Egyptian origin can be attributed to the scarab from Semna displaying the sign *r* and typical Second Intermediate Period form of *k3* (**Pl. 34: 38**), and the scarabs from Hu (**Pl. 34: 36**) and Nubt (**Pl. 34: 37**) displaying the sign *r*. For the possible Egyptian origin of one of the Tell el-Dab`a scarabs bearing the design (**Pl. 34: 35**) see design class 3B3b above. A Canaanite origin is suggested for one of the Tell el-Dab`a scarabs (Mlinar 2001, no. 901) and both of the Aniba scarabs, which display also the *nsw-bit* motif (above, design class 3B2).

§IIA 3b5. Design class 3B5 – Sedge plant (*swt*)

Unlike the *wd3t* eyes, the *swt* plant is well represented in symmetric patterns on Second Intermediate Period scarabs. Three examples were found at Tell el-Dab`a (Mlinar 2001, nos. 524 and 706 from stratum E/1 and D/3 respectively, and no. 1008 from an unclear context), eight at Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 18, 19, 21, 22, Petrie 1906: Pl. 7: 20, Pl. 9: 122, 123, 125), three at Mayana (Petrie and Brunton 1924: Pl. 43: 1, 11, 49), one at Matmar (Brunton 1948: Pl. 43: 36), three at Mostagedda (Brunton 1937: Pl. 69: 17, 19, 53), three at Qau (Brunton 1930: Pl. 19: 13, 51, 52), one at Koptos (Petrie 1896: Pl. 25: 102), three at Nubt (Petrie and Quibell 1896: Pl. 53, 54, 55), two at Aniba (Steindorff 1937: Pl. 56: 93, 120), four at Debeira (Säve-Söderbergh 1889: Pls. 42-43: 170/37:10a, 170/37:10e, 170/37:10f, 338/1:2), one at Mirgissa (Vercoutter 1976: 277, Fig. 7:f), one at Semna (Dunham and Janssen 1960: Pl. 122: 16), and two at Kerma (Reisner 1923: Pls. 40-41 II: 72, 73).

As in the case of late Middle Kingdom scarabs, pairs of sedge plants are usually displayed in symmetric opposition in the top field of symmetric patterns, flanking a central sign (**Pl. 35: 1-12, 14-19**). The horizontal line dividing the plinth into two fields on most late Middle Kingdom examples of design class 3B5 (above, §IA 3b5) is, however, rare on Second Intermediate Period examples, the few attested examples⁴⁰⁶ are more likely of Canaanite rather than Egyptian origin (below, §IVA 3b5). The most notable difference between late Middle Kingdom and Second Intermediate Period examples of the design is the "casual" simple form of the sign on Second Intermediate Period scarabs vs. the "formal" customary late Middle Kingdom form (above, §IA 3b5).

⁴⁰⁴ E.g. Petrie 1906: Pl. 9: 130 from Tell el-Yehudiyeh; Brunton 1930: Pl. 4: 4, Pl. 19: 50 from Qau; Petrie 1901: Pl. 41: 13 from Hu; Reisner 1923: Pl. 42 I: 4 from Kerma.

⁴⁰⁵ The designs on the sealings presented in Pl. 80: 46-47, 50, 61 display distinctive late Middle Kingdom characteristics.

⁴⁰⁶ A scarab from Tell el-Dab`a (Mlinar 2001, no. 706), a scarab from Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 19), and a scarab from Matmar (Brunton 1948: Pl. 43: 36).

The popularity of the design in the Palestinian series (Tufnell 1984: Pl. 14) indicates, as in the case of other sub-classes of design class 3, primarily its adaptation on Canaanite scarabs (below, §IIIA 3b5, §IVA 3b5). Establishing an Egyptian or Canaanite origin for examples found in the Egyptian/Nubian series is not always possible. A most likely Egyptian origin is suggested for examples occurring on cowroids of the type associated with King Apophis (Pl. 35: 4), those depicting the sign *r* (Pl. 35: 1, 5-14, 16-20), the particular Second Intermediate Period form of the sign *k3* (Pl. 35: 1, 15), and examples displaying identical patterns (Pl. 35: 2-3). A Canaanite origin may be implied for examples depicting the *swt* plants addorsed,⁴⁰⁷ or facing the same direction,⁴⁰⁸ features that are not attested on late Middle Kingdom scarabs and are extremely rare on scarabs and cowroids displaying distinctive Egyptian Second Intermediate Period characteristics (Pl. 35: 13, 20). Yet the occurrence of both patterns on Second Intermediate Period royal-name scarabs (Tufnell 1984: Pl. 57: 3236, 3238) does not allow a decisive conclusion with regard to the origin of these unusual forms. A Canaanite origin is also implied for the unusual example from Qau – a double-hedgehog cowroid – considering the Levantine origin of most excavated parallels (Keel 1995a: 70). It is further indicated by the designs occurring on all known examples displaying this back type, which are of Canaanite origin.⁴⁰⁹

§IIA 3b6. Design class 3B6 – Gold sign (*nw*) in longitudinal setting

As in the case of other late Middle Kingdom designs, the popularity of design class 3B6 is notably reduced in the Second Intermediate Period, though contemporaneous examples are found in both the Egyptian/Nubian and the Palestinian series. The Egyptian/Nubian series yielded fourteen examples, nine of them from the eastern Delta: six from Tell el-Dab'a (Mlinar 2001, nos. 507, 524 from stratum E/1, no. 604 from strata E/1-D/3, no. 901 from stratum D/2, no. 1058 unstratified; Mlinar 2002, inv. No. 8626 from stratum D/3), three from Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 20, 21; Petrie 1906: Pl. 9: 125), two from Mayana (Petrie and Brunton 1924: Pl. 43: 1, 49), one from Qau (Brunton 1930: Pl. 19: 10), one from Esna (Downes 1974: 62, Group 221: 8), and one from Semna (Dunham and Janssen 1960: Pl. 120: 25).

These examples are easily distinguished from those of the late Middle Kingdom although the basic pattern is the same, comprising a central gold sign displayed longitudinally flanked by symmetrically displayed signs and surmounted by one, two or three signs or symbols (above §IA 3b6). The two *nh* signs usually flanking the central gold sign on late Middle Kingdom examples occur also on Second Intermediate Period examples (Pl. 35: 22, 24); however, they are occasionally depicted flanking the sign or signs above the gold sign (Pl. 35: 24),⁴¹⁰ or below it⁴¹¹ – variations not attested on late Middle Kingdom scarabs. Other late Middle Kingdom signs customarily flanking the gold sign, like spirals, decorated ovals, or oval rings enclosing the *nh* signs, are not attested in the Second Intermediate Period series. The signs and symbols usually surmounting the gold sign on late Middle Kingdom scarabs, like addorsed crowns, the three-stem papyrus plant, lion foreparts, *m3ct* feathers, or the sign *sn*, are not attested on Second Intermediate Period examples of the design. The exceptions, which occur also on Second Intermediate Period examples, are the bee, *w3d* and papyrus plant (Pl. 35: 21-22).

The distinction between Second Intermediate Period Egyptian and Canaanite scarabs bearing the design is in most cases inconclusive. A Canaanite origin is suggested for the examples from Tell el-Dab'a and Semna displaying the *nsw-bit* motif (above, design class 3B2), one of the Mayana scarabs displaying *swt* plants facing the same direction (Petrie and Brunton 1924: Pl. 43: 1), and one of the Tell el-Yehudiyeh examples displaying addorsed *swt* plants (Naville and Griffith 1890: Pl. 10: 21, above, design class 3B5). A likely Canaanite origin is also indicated for the Tell el-Yehudiyeh scarab depicting a *lpr* above the gold sign (Petrie 1906: Pl. 9: 125), considering the almost complete absence of this sign with design class 3B6 in the Egyptian/Nubian series⁴¹² and its common occurrence in the Palestinian series (Tufnell 1984, Pl. 15).

⁴⁰⁷ E.g. a scarab from Tell el-Dab'a (Mlinar 2001, no. 524), and two from Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 21; Petrie 1906: Pl. 7: 20). For examples in the Palestinian series see e.g. Tufnell 1984: Pl. 14: 1619, 1620, 1621, 1624, 1625, 1628, 1630, 1636, 1640, 1641, 1650, 1655, 1658, 1661.

⁴⁰⁸ E.g. a scarab from Mayana (Petrie and Brunton 1924: Pl. 43: 1).

⁴⁰⁹ E.g. from Dakka in Lower Nubia depicting the Canaanite Hathor symbol (Firth 1915: Pl. 41: 68), an unprovenanced example from Basel depicting a falcon next to *htp-n-r* (Hornung and Staehelin 1976: Pl. 17: 181).

⁴¹⁰ See also another examples from Tell el-Yehudiyeh (Petrie 1906: Pl. 9: 125); one from Mayana (Petrie and Brunton 1924: Pl. 43: 49); and one from Esna (Downes 1974: 62, Group 221: 8). These are not presented in Pl. 35 as they are more likely of Canaanite rather than Egyptian origin.

⁴¹¹ From Qau (Brunton 1930: Pl. 19: 10). The scarab is more likely of Canaanite rather than Egyptian origin and therefore is not presented in plate 35.

⁴¹² Its only occurrence on a likely Egyptian Second Intermediate Period example is on a cowroid from Tell el-Yehudiyeh (Pl. 35: 24).

An Egyptian origin is indicated for examples of the design on cowroids of the type associated with King Apeph (PI. 35: 24). A possible Egyptian origin is suggested for three examples from Tell el-Dab'a (PI. 35: 21-23), which do not display distinctive Canaanite characteristics. The relatively small number of examples bearing design class 3B6 in the Egyptian/Nubian series compared with the numbers attested in the Palestinian series (below, §IVA 3b6) suggests that most examples constitute Canaanite imports. This is further indicated by the distribution of most examples from the Egyptian/Nubian series in the eastern Delta. The production of Egyptian Second Intermediate Period examples bearing this design is, however, indicated by the cowroid from Tell el-Yehudiyeh (PI 35: 24).

§IIA 3b7. Design class 3B7 – Forepart of lion (*ḥ3t*)

The popularity of this design in the late Middle Kingdom series in contrast with its scarcity in the Palestinian series was already noted by Tufnell (1984: 120-21, see above, §IA 3b7). An examination of the Second Intermediate Period Egyptian/Nubian series reveals that the design is not attested on Second Intermediate Period scarabs; the isolated examples found in the excavated series are exclusively of the late Middle Kingdom.⁴¹³ This is also the case with most examples from the Palestinian series (Loud 1948, Pl. 150: 70; Tufnell 1984, Pl. 15: 1691-1693),⁴¹⁴ except for isolated Canaanite scarabs displaying lion foreparts in a misrendered form at the bottom field of symmetric patterns, usually associated with the *nsu bit* motif (below, §IIIA 7b7; Pl. 55: 14-16). A single example of this type was found at Esna (Downes 1974: 62, Group 221: 3), where it most probably constitutes a Canaanite import. Not a single example bearing design class 3B7 can be attributed an Egyptian Second Intermediate Period origin.

Summing up design class 3B in the Second Intermediate Period series, it can be shown that a significant number of the late Middle Kingdom subclasses of the design continue into the Second Intermediate Period, but the variations and number of examples are notably smaller. The adaptation of most subclasses of the design also on Canaanite scarabs is occasionally confusing as regards the Canaanite or Egyptian origin of examples from the Second Intermediate Period Egyptian/Nubian series. The evidence presented above does indicate, however, that scarabs displaying particular characteristics can be attributed an Egyptian origin.

§IIA 3c. Design class 3C – Formulae

As noted above (§IA 3c), the formulae categorized by Tufnell under design class 3C are usually referred to as *ḥnr*^c after the hieroglyphs *ḥ n r* found in the most common variations of the design (Keel 1995a: 175-76; Richards 2001). The Canaanite origin of design class 3C is indicated by its occurrence in Palestine earlier than in Egypt, and by the numerous misrendered signs and pseudo-hieroglyphs associated with it (Ben-Tor 1997: 171-75). It is further indicated by the number of examples and their distribution in the Palestinian series, compared with the Egyptian/Nubian series. The extensive corpus displaying design class 3C in the Palestinian series can hardly compare with the limited corpus attested in the Egyptian/Nubian Second Intermediate Period series. Moreover, the continuous development of the design on Canaanite scarabs throughout the Middle Bronze Age is reflected in the numerous variations found in the early and late Palestinian series (below §IIIA 3c, §IVA 3c). Nevertheless, evidence for Egyptian imitations of this Canaanite design is found on Second Intermediate Period as well as New Kingdom Egyptian scarabs.⁴¹⁵

The Egyptian/Nubian Second Intermediate Period series yielded a substantial group of Canaanite imports, a smaller group that can be attributed an Egyptian origin, and a few inconclusive examples. Eight examples bearing design class 3C come from Tell el-Dab'a (Mlinar 2001, nos. 509, 518, 519, 521 from stratum E/1, no. 710 from stratum D/3, and no. 903 from stratum D/2, and nos. 1061, 1076 from unclear contexts), nineteen from Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 6, 28, 29, 31; Petrie 1906: Pl. 6: 4, Pl. 7: 8, 9, 14, 16, 17, Pl. 8: 44, Pl. 9: 129, 165, 166, 168, 169, 170, 171, 172), three from Mayana (Petrie and Brunton 1924: Pl. 43: 12, 15, 25), five from Qau (Brunton 1930: Pl. 19: 35, 57, 58, 70, 71), one from Hu (Petrie 1901: Pl. 41: 16), one from Nubt (Petrie and Quibell 1896: Pl. 80: 45), and nine from Esna (Downes 1974: 60-65, Groups 27: 1; 163: 4; 190: 4; 221: 2, 6; 223: 4, 6; 238: 1; 305: 1). One each come from Dakka and Barsinishei in Lower Nubia (Firth 1915: Pl. 41: 71; 1927, Pl. 36: 199),⁴¹⁶ six from Aniba (Steindorff 1935: Pl. 31: 24, 25, Steindorff 1937: Pl. 56: 103, 107, 108, 112),

⁴¹³ These include a scarab from Tell el-Dab'a (Mlinar 2001, no. 107) attributed to strata G-F of the late Middle Kingdom, a scarab from Koptos (Petrie 1896: Pl. 24: 7), a scarab from Buhen (Randall-MacIver and Woolley 1911: Pl. 96: 10900B), a scarab from Mirgissa (Vercoutter 1975: 85, Fig. 26), and a scarab from Kerma (Reisner 1923: Pl. 42 I: 4). All constitute heirlooms except for the Tell el-Dab'a scarab. Three examples were found among other late Middle Kingdom scarabs in U-type tombs at Ukma (Vila 1987: Pls. 5-6: 12/1, Pls. 7-8: 201/2, 203/8).

⁴¹⁴ Tufnell 1984: Pl. 15: 1689-1690 are late Middle Kingdom scarabs from tomb 66 at Ruweise (See Ben-Tor 2003: 242-43, and Fig. 3).

⁴¹⁵ For New Kingdom variations of the design see Jaeger 1982: 295, Figs. 680-83; Brandl 2003: 250, Pl. 1: SC 3-4.

⁴¹⁶ Both also displaying design class 3B3e (above).

three from Debeira (Säve-Söderbergh 1989: Pls. 43, 44: 170/37: 10H, 170/37: 10L, 220/28:1C), three from Buhen (Randall-MacIver and Woolley 1911: Pl. 56: 10041, Pl. 59: 10190, Pl. 89: 10793), two from Mirgissa (Vercoutter 1975: Fig. 19: 4, Fig. 21: 2), four from Ukma (Vila 1987: Pls. 5-6: 9/9, 102/2, Pls. 7-8: 189/17, 189/18), and nine from Kerma – seven scarabs (Reisner 1923: Pls. 40-41 II: 42, 46, 47, 53, 63, 69, 70), and two seal impressions (Reisner 1923: Fig 168: 54, 55).

Based on parallels from the Palestinian series a significant number of these scarabs can be assigned a Canaanite origin. A most likely Egyptian origin can be assigned to examples on cowroids of the type associated with King Apophis (**Pl. 35: 25-28**), and examples displaying the formula flanked by so-called "Hyksos sides" customarily flanking royal names on Second Intermediate Period royal-name scarabs (**Pl. 35: 29-33**; below, §IVB 1).⁴¹⁷ A likely Egyptian origin should also be considered for examples depicting the formula flanked by ^c*nh* signs (**Pl. 35: 25-27, 34-36**) considering the occurrence of this particular design on Apophis-type cowroids, and their almost complete absence in the Palestinian series. Inconclusive examples include those on plain cowroids (**Pl. 35: 37-38**),⁴¹⁸ which are known to display Canaanite as well as Egyptian designs.⁴¹⁹ The origin of examples depicting design 3C flanked by two crowns depicted tête bêche (**Pl. 34: 21-26**) is also inconclusive (see design class 3B3e above).

The likely inspiration of some variations of design class 3C from the small so-called *rdi-r^c* scarabs was noted elsewhere (Ben-Tor 1997: 175-77). The late Middle Kingdom origin of this particular type of scarab is indicated by examples found in the late Middle Kingdom series (above, §IA 3c). Most excavated examples, however, come from the Egyptian/Nubian Second Intermediate Period series. These include eight examples from the eastern Delta, seven from Tell el-Dab'a (Mlinar 2001, no. 213 from stratum F, No. 404 from stratum E/2, Nos. 515, 517 from stratum E/1. From unclear contexts are No. 1017, and inv. Nos. 7404, 7405), and one from Tell el-Maskhuta (**Appendix Pl. 2: 5**). One example comes from Mayana (Petrie and Brunton 1924: Pl. 43: 36), six from Mostagedda (Brunton 1937: Pl. 69: 38, 40, 41, 42, 43, 51), two from Qau (Brunton 1930: Pl. 19: 63, 64), two from Esna (Downes 1974: 62-63, Group 223: 3, Group 238: 7), two from Aniba (Steindorff 1937: Pl. 56: 99, 109), five from Mirgissa (Vercoutter 1970: Pl. 26: 11, 13, 14, 15 from KT2 tomb in the Kerma cemetery; Vercoutter 1975: Fig. 63: 40), three from Semna (Dunham and Janssen 1960: Pl. 120: 17, 24, Pl. 121: 38), two from Ukma (Vila 1987: Pls. 5-6: 16/7a, 16/7b). An additional example was found in the U cemetery (Vila 1987, Pls. 5-6: 146/1), and one from Kerma (Reisner 1923: Pls. 40-41 II: 49). It is important to note a significant number of examples from the north pyramid cemetery at el-Lisht, unfortunately all of them from debris.⁴²⁰ In addition to small-size scarabs, this group consists of small-size hedgehog design amulets.⁴²¹

The Egyptian origin of the *rdi-r^c* type scarabs is clearly indicated by their distribution mainly in the Egyptian/Nubian series and extremely rare occurrence in the Palestinian series.⁴²² It is interesting to note this distribution – mainly in Egypt and Nubia – in comparison with the distribution of design class 3C mainly in Palestine and in the eastern Delta. Canaanite imitations of *rdi-r^c* type scarabs in the Palestinian series were presented elsewhere (Ben-Tor 1997: Fig. 7: 5-10). Two examples were also found at Tell el-Dab'a (Mlinar 2001, nos. 303 from stratum E/3, and 521 from stratum E/1), probably constituting Canaanite imports from Palestine considering the absence of similar examples in the Egyptian/Nubian series.

Distinguishing *rdi-r^c* scarabs of the Second Intermediate Period from those of the late Middle Kingdom is rarely possible. The fact that most excavated examples come from Second Intermediate Period contexts does not necessarily argue for dating them exclusively to this period. It does indicate, however, the continuing production of this type of scarab in the Second Intermediate Period, though only a small number of examples display distinctive Sec-

⁴¹⁷ See Ben-Tor 2004c: 35-37, and Fig. 9.

⁴¹⁸ See Keel 1995a: 78-79, Fig. 125 – type 1.

⁴¹⁹ See Keel 1995a: 78-79 for this type of cowroid (type 1) in the Palestinian series, and Downes 1974: 65, Group 305: 1 from Esna for an example with "Hyksos sides" that is most likely of Egyptian origin.

⁴²⁰ Scarabs: MMA 09.180.1053; MMA 09.180.1055; MMA 20.1.34; MMA 20.1.35; MMA 20.1.83; MMA 20.1.94; MMA 22.1.410; Hedgehogs: MMA 09.180.1057; MMA 20.1.33; MMA 22.1.301. The el-Lisht examples include also a frog (MMA 20.1.32) and a double-hippo (MMA 22.1.555); both types of design amulets suggest an early 18th Dynasty date (Keel 1995a: 62, 69) and argue for the continuation of the *rdi-r^c* design amulets into the early 18th Dynasty.

⁴²¹ E.g. Mlinar 2001, nos. 517 and 7405 from Tell el-Dab'a; Petrie and Brunton 1924: Pl. 43: 36 from Mayana; Vercoutter 1976: Fig. 8: 8-10 from Mirgissa. The late Middle Kingdom origin of the hedgehog design amulet is indicated by an example from stratum G at Tell el-Dab'a (Mlinar 2001, no. 13) bearing design class 3B4.

⁴²² The only known examples were found at Tell el-Ajjul (Petrie 1933: Pl. 4: 115), and Tell el-Far'ah (N) (Mallet 1988: Fig. 37: 5). The latter displays an additional sign, probably the hieroglyph "t", which is not attested on any examples found in Egypt except for two scarabs from Tell el-Dab'a (Mlinar 2001, nos. 213, 404), thus arguing for the production of this particular type at Tell el-Dab'a.

ond Intermediate Period characteristics like a larger size, a square depiction of the sun disk, or their production of crude glazed composition (**Pl. 35: 39-42**).⁴²³

§IIA 3d. Design class 3D – Cartouches

Tufnell divides design class 3D into six subclasses based mainly on the Palestinian series, and includes also royal-name scarabs with actual cartouches enclosing royal names (Tufnell 1984: 121-22, Pls. 17-18). She notes, however, the minor diagnostic significance provided by the form of the cartouche for establishing a sequence of kings in the period under discussion (Tufnell 1984: 121). As this observation holds true also for the distinction between royal-name and design scarabs and for the sequence and origin of the latter, Tufnell's division of design class 3D is not considered here. A distinction is made here between a simple oblong ring, an actual cartouche, and varia, which are categorized respectively as subclasses 3D1, 3D2, 3D3. As in the case of the late Middle Kingdom series (above §IA 3d) the discussion of design class 3D in this chapter refers only to design scarabs, except in the case of scarabs displaying Second Intermediate Period characteristics bearing names of 12th Dynasty kings. The latter are treated here as design scarabs and not as royal-name scarabs. As in the case of late Middle Kingdom scarabs, oval rings enclosing *ꜥnḥ* or *nfr* signs constituting secondary motifs⁴²⁴ are not categorized under design class 3D.

In comparison with the popularity of design class 3D in the Palestinian series (Tufnell 1984, Pls. 17-18), the Egyptian/Nubian Second Intermediate Period series yielded a much smaller group displaying the design. Three examples come from Tell el-Dab`a (Mlinar 2001, nos. 610, 618 from stratum E/1-D/3 – design 3D1, No. 1038 from unclear context – design 3D3), three from Tell el-Maskhuta (**Appendix Pl. 1: 1, 14-15** – design 3D2), one from Tell el-Yehudiyeh (Neville and Griffith 1890: Pl. 10: 1 – design 3D2), one from Hu (Petrie 1901: Pl. 41: 8 – design 3D1), one from Nubt (Petrie and Quibell 1896: Pl. 80: 45 – design 3D1), one from Esna (Downes 1974: 61, Group 178, i2 – design 3D2), two from Aniba (Steindorff 1937: Pl. 56: 103, 152 – design 3D1), one from Buhen (Randall-MacIver and Woolley 1911: Pl. 57: 10090 – design 3D1),⁴²⁵ one from Mirgissa (Vercoutter 1975: Fig. 27: 1 – design 3D1), and one from Ukma (Vila 1987: Pls. 5-6: 102/2 – design 3D3).

§IIA 3d1. Design class 3D1 – simple oblong ring

Three examples bearing royal names of 12th Dynasty kings enclosed in an oblong ring come from the Egyptian/Nubian excavated series, all bearing the throne name of the 12th Dynasty king Senwosret I (**Pl. 36: 1-3**). The origin of these scarabs, whether Egyptian or Canaanite, is uncertain.

The only examples of design class 3D1 to which an Egyptian origin can be securely attributed are, as in the case of design class 3D2 (below), those depicting it in combination with design class 3A4, and with the pseudo royal name *nḥ-k3-rꜥ*. Only two examples come from the Egyptian/Nubian excavated series, both displaying design class 3A4: one from Aniba (**Pl. 36: 4**) and one from Mirgissa (**Pl. 36: 5**), the latter on a cowroid of the type associated with King Apophis (above, design class 3A4). A significant number of examples are, however, found among unprovenanced scarabs and cowroids in museum collections (**Pl. 36: 6-13**).

It is interesting that the dominant late Middle Kingdom pattern of design class 3D1 depicting the signs *nfr rꜥ* enclosed in an oblong ring (**Pl. 12: 1-18**) is attested only on Canaanite scarabs of the Second Intermediate Period (Tufnell 1984: Pl. 17: 1770, 1778, 1780, 1798). A Canaanite origin may also be suggested for the two sealings from Nubt bearing the formula *ḥtp-n-rꜥ* enclosed in an oblong ring (design class 3C above), which except for one example from Tell el-Dab`a (Mlinar 2001, no. 1076 from unclear context) are the only occurrences of this particular formula outside Palestine. The particular design on one of the Aniba scarabs (Steindorff 1937: Pl. 56: 103), depicting a variation of design class 3C enclosed in the oblong ring, also argues for a Canaanite origin considering its parallels in the Palestinian series (Tufnell 1984: Pl. 17: 1774, 1775, 1776, 1792).

§IIA 3d2. Design class 3D2 – actual cartouches

Two of the five examples displaying an actual cartouche bear the name of the god Ptah above the cartouche (Neville and Griffith 1890: Pl. 10: 1 from Tell el-Yehudiyeh; Downes 1974: 6, Group 178: i2 from Esna), a distinctive Canaanite characteristic indicating the Canaanite origin of these scarabs (Keel 2002: 197-200, 209-213; below, §IIIA 3b8, §IVA 3b8). A Canaanite origin is also indicated for two of the three Tell el-Maskhuta scarabs displaying

⁴²³ See also Ben-Tor 2004c: 33-34, and Fig. 3.

⁴²⁴ For late Middle Kingdom examples see e.g. Tufnell 1975: Fig. 6: 290-291, 295-296 from Kahun and Uronarti. For Second Intermediate Period examples see e.g. Mlinar 2001, nos. 506, 603, 1020 from Tell el-Dab`a, Brunton 1937: Pl. 69: 23 from Mostagedda, Downes 1974: 62, Group 221: 4 from Esna.

⁴²⁵ The type of continuous scroll border on scarab no. 10026, which displays design class 3D1, argues for a late Middle Kingdom date (see Tufnell 1975: Fig. 9: 392-394).

actual cartouches: the one displaying a kneeling figure (**Appendix Pl. 1: 14**),⁴²⁶ and the one displaying the Canaanite form of the sign *k3* (**Appendix Pl. 1: 15**).⁴²⁷ These two scarabs display almost identical back and head types, which are also attested on the third scarab bearing an actual cartouche from Tell el-Maskhuta (**Appendix Pl. 1: 1**), arguing for the Canaanite origin of this scarab as well. Two of the latter bear the throne names of 12th Dynasty kings – the Tell el-Yehudiyeh scarab bearing the name of Senwosret I and the Esna scarab bearing the name of Amenemhat III. The name of the god Ptah depicted above the cartouche on both examples indicates their Canaanite origin and argues against categorizing them as royal-name scarabs, as the latter were not produced outside Egypt (below, §IIIA 3b8, §IVA 3b8).

The evidence provided by the excavated series argues against the production of design scarabs with actual cartouches in Egypt during the Second Intermediate Period. Nevertheless, unprovenanced examples in museum collections indicate that this is not the case. An example bearing design class 3A4 (above) and two examples bearing the pseudo-royal name *nī-k3-r^c* depict the formulae enclosed in actual cartouches (**Pl. 36: 14-16**). The Egyptian origin of the group bearing the formula *nī-k3-r^c* is indicated by examples displaying characteristics associated with royal-name scarabs and cowroids of King Apophis,⁴²⁸ and by the sign *r* on one of the Basel examples (**Pl. 36: 16**).

§IIA 3d3. Design class 3D3 – varia

This subclass refers to examples depicting frames other than the cartouche or the oblong ring. Such examples constitute mainly Canaanite productions considering the evidence from the excavated series in Egypt and Palestine (below, §IIIA 3d3, §IVA 3d3). Only two examples are attested in the Egyptian/Nubian Second Intermediate Period series, one from Tell el-Dab`a depicting a rectangular frame (**Pl. 36: 17**), and one from Ukma depicting only the upper part of an oblong ring (Vila 1987: Pls. 5-6: 102/2). Parallels for the Ukma example come exclusively from the Palestinian series (Keel 1997: Azor, No. 4, Tell el-`Ajjul Nos. 406, 459, Ashkelon No. 115). The Canaanite origin of the Ukma scarab and its parallels is further supported by the *nsu-bit* motif depicted above the pseudo cartouche. No parallel is known for the rectangular frame depicted on the scarab from Tell el-Dab`a, arguing for the possible production of this scarab in the local workshop.

§IIA 3e. Design class 3E – panels

The absence of design class 3E on Middle Kingdom scarabs was noted above (§IA 3e). Its Canaanite origin is indicated by its occurrence in Palestine earlier than in Egypt and by its close association with design class 3C (below, §IIIA 3e). Particular variations of design class 3E constitute, however, the most common designs on Second Intermediate Period royal-name scarabs (Ward in Tufnell 1984: 164-65, Pls. 56-61), and occur also on contemporaneous private-name scarabs (Martin 1971: Pls. 40-41). The Canaanite origin of design class 3E, and its adaptation on Second Intermediate Period royal-name and private-name scarabs, which are exclusively of Egyptian production, are discussed below (§IIIA 3e, §IIB 1). The discussion here refers only to design scarabs displaying variations of design class 3E in the Egyptian/Nubian excavated series, with occasional references to royal-name and private-name scarabs to confirm the Egyptian origin of particular patterns.

Tufnell divides design class 3E into six subclasses, based primarily on the Palestinian series (Tufnell 1984: 122-23, Pls. 19-20). Five of these subclasses are considered in this study as they have implications on the sequence and origin of particular patterns. These include subclasses 3E1 depicting three or more signs in margins; 3E2 depicting two signs in margins; 3E3 depicting double *ntr* signs, one reversed in margins; 3E4 depicting cross bars in margins; 3E5 depicting a shrine-like motif. Subclass 3E6 – varia – is not considered here as it displays random variations of no chronological or geographical significance.

The number of design scarabs displaying variations of design class 3E in the Egyptian/Nubian excavated series is notably smaller than that attested in the Palestinian series. Five examples were found at Tell el-Dab`a (Mlinar 2001, no. 518 from stratum E/1, No. 609 from strata E/1-D/3, and Nos. 1005, 1061, 1069 from unclear contexts),⁴²⁹ three at Qau (Brunton 1930: Pl. 19: 4, 23, 27), two at Koptos (Petrie 1896: Pl. 25: 140, 161), five at Esna (Downes 1974: 60-65, Group 135: 2, Group 190: 4, Group 221: 2, Group 238: 1, Group 305: 1), one at Debeira (Säve-Söderbergh 1989: Pl. 43: 170/37: 10H), two at Buhen (Randall-MacIver and Woolley 1911: Pl. 56: 10041, Pl. 89: 10793), and three at Kerma (Reisner 1923: Pls. 40-41 II: 69, 70, and Fig. 168: 55). This small group displays mainly two of Tufnell's subclasses of the design, namely subclasses 3E1 – three or more signs in margins, and 3E4 – cross bars in margins.

⁴²⁶ Design class 10C (below, §IVA 10c).

⁴²⁷ See Ben-Tor 1997: 171.

⁴²⁸ E.g. Hall 1913: Nos. 291-294; Hornung and Staehelin 1976: Nos. 152-153 (see design class 3A4 above).

⁴²⁹ The panels of No. 518 are made by addorsed linked uraei.

Design class 3E1 occurs on three examples from Tell el-Dab`a (Mlinar 2001, nos. 518, 609, 1061), one from Koptos (Petrie 1896: Pl. 25: 140), one from Esna (Downes 1974: 63, Group 238: 1), and one from Kerma (Reisner 1923: Pls. 40-41 II: 69), displaying almost exclusively combinations with design class 3C. Tufnell does not distinguish between variations of subclass 3E1 depicting in the margins variations of design class 3C, and those depicting three or more hieroglyphs that are not associated with the ϵ_{nr}^c formulae. The popularity of the former in the Palestinian series (Tufnell 1984, Pl. 19), their complete absence on royal-name scarabs, and their rare occurrence in the Egyptian/Nubian series argue for the Canaanite origin of most examples. Exceptions are a private-name scarab and a scarab bearing the title $h\bar{k}3\ h3swt$ both displaying this particular variation of subclass 3E1 and both bearing non-Egyptian names (Martin 1971: Pl. 41: 1, 3 = **Pl. 36: 18-19**). It is argued below (§IIB 3) that these scarabs, like all other private-name scarabs, were manufactured in Egypt. Hieroglyphs that are not associated with design class 3C do occur in the margins of Second Intermediate Period royal-name scarabs (Tufnell 1984: Pls. 56-57: 3208-3210, 3212-3215, 3221, 3223) as well as Canaanite scarabs (Tufnell 1984: Pl. 19: 1831, 1834, 1838, 1841, 1843), and the origin of design scarabs bearing the design is not always conclusive. The design is also attested on two contemporaneous private-name scarabs (Martin 1971: Pl. 41: 2, 6 = **Pl. 36: 20-21**) and is the most common design on scarabs of King Khyan bearing the title $h\bar{k}3\ h3swt$ (Martin 1971: Pl. 40: 28-35; below, §IIB 1).

The Tell el-Dab`a scarabs displaying subclass 3E1 include a unique example depicting papyrus plants instead of hieroglyphs (**Pl. 36: 22**), the origin of which is uncertain. The site yielded also another unusual example of subclass 3E1 displaying the division into panels as two addorsed and linked uraei (Mlinar 2001: no. 518), a pattern attested only on Canaanite scarabs.⁴³⁰ This scarab depicts in the central column a misrendered form of the royal name Sobkhotep, and design class 3C in the margins, both suggesting a Canaanite origin (Ben-Tor et al. 1999: 62). The Canaanite origin of the other examples displaying subclass 3E1 in the Egyptian/Nubian series is indicated by the numerous parallels in the Palestinian series depicting combinations of design classes 3E1 and 3C (below, §IIIA 3e1, §IVA 3e1).

The group displaying subclass 3E4 includes two examples from Tell el-Dab`a (**Pl. 36: 24-25**), three from Qau (**Pl. 36: 26-28**), one from Koptos (**Pl. 36: 29**), two from Esna (**Pl. 36: 30-31**), one from Debeira (**Pl. 36: 32**), and one from Kerma (**Pl. 36: 33**). The designs depicted in the central column flanked by subclass 3E4 are in most cases twisted ropes (**Pl. 36: 24-26, 28-29**) (below, design class 6) or variations of design class 3C (**Pl. 36: 30-33**). An exception is a scarab from Qau depicting spirals in the central column (**Pl. 36: 27**; design class 2 above). The popularity of subclass 3E4 on Second Intermediate Period royal-name scarabs (Tufnell 1984, Pls. 59-61), its occurrence on private-name scarabs (Martin 1971, Pl. 41: 7-23), and its relative scarcity in the Palestinian series (Tufnell 1984: 123) argue for an Egyptian origin; One of the Esna examples is a cowroid of the type associated with King Apophis (**Pl. 36: 30**).

Subclass 3E2 depicting two hieroglyphs in margins occurs only once on a design scarab in the Egyptian/Nubian excavated series, on a scarab from Esna (**Pl. 36: 23**). This subclass is missing in the Palestinian series as is subclass 3E3 (Tufnell 1984: 123), but both occur on a significant number of Second Intermediate Period royal-name scarabs (Tufnell 1984, Pls. 56-60 *passim*) arguing for the Egyptian origin of both subclasses (below, §IIB 1).

Subclass 3E5 depicting a shrine-like motif is attested only once in the Egyptian/Nubian excavated series, on a scarab from Buhen (Randall-MacIver and Woolley 1911: Pl. 89: 10793), and it does not occur on royal-name and private-name scarabs. Its popularity in the early Palestinian series (Ben-Tor 1997: 179-81) and its almost complete absence in the Egyptian/Nubian series strongly argue for its Canaanite origin.

Summing up design class 3 on Second Intermediate Period scarabs we can conclude:

1. Most subclasses in the Egyptian/Nubian series, whether occurring on Canaanite imports or scarabs manufactured in Egypt continue late Middle Kingdom traditions.
2. Only very few late Middle Kingdom subclasses, such as 3A2 (*nbtj*), 3B3 (red crowns on *nb*) and 3B7 (forepart of lion) are not attested on Second Intermediate Period scarabs.
3. Design classes occurring in the Egyptian/Nubian series that are not attested on Middle Kingdom scarabs, such as 3C and 3E, either occur on Canaanite imports or display adaptations of Canaanite designs.

§IIA 4. Design class 4 – Concentric circles

The early Middle Kingdom origin of design class 4 and its almost complete absence on scarabs of the late Middle Kingdom are discussed above (§IA 4). The popularity of the design in the Palestinian series (Tufnell 1984, Pls. 21-22) is discussed below (§IIIA 4) as it represents almost exclusively its adaptation and local development on Canaanite scarabs. The Egyptian/Nubian Second Intermediate Period series yielded variations of design class 4 that are not attested on early Middle Kingdom or Canaanite scarabs, suggesting a Second Intermediate Period Egyptian

⁴³⁰ For the Canaanite parallels see below, §IIIA 3e1. Panels ending with uraei occur on a small number of private-name scarabs, but they are not linked like the Canaanite examples (Martin 1971: Pl. 41: 4-6).

origin (Ben-Tor 2004c: 34-36, and Figs. 5-6). Five such examples were found at Tell el-Dab`a (**Pl. 37: 1-5**), sixteen at Mayana (**Pl. 37: 6-21**), two at Mostagedda (**Pl. 37: 22-23**), four at Qau (**Pl. 37: 24-27**), three at Esna (**Pl. 37: 28-30**), one at Dakka (**Pl. 37: 31**), one at Aniba (**Pl. 37: 32**), two at Debeira (**Pl. 37: 33-34**), one at Buhen (**Pl. 37: 35**), two at Mirgissa (**Pl. 37: 36-37**), six at Semna (**Pl. 37: 38-43**), one at Ukma (**Pl. 37: 44**), and two at Kerma (**Pl. 37: 45-46**).

As already noted above (§IA 4) Tufnell's subdivision of design class 4 has no chronological or geographical significance and is therefore not considered in this study. Ward stresses stylistic differences between examples from the Montet Jar and those attributed by him to the Middle Kingdom and Second Intermediate Period, noting in particular the Second Intermediate Period examples from Sedment (Ward 1978b: 44-47). However, he does not distinguish the Canaanite examples and incorrectly attributes many of them to the Middle Kingdom. The differences between the three groups displaying design class 4 – early Middle Kingdom, Canaanite, and Second Intermediate Period Egyptian – are quite distinct (Ben-Tor 2004c: Figs. 5-6), and only isolated examples remain inconclusive.⁴³¹

Scarabs and cowroids from the Egyptian/Nubian Second Intermediate Period series display variations of design class 4 that are not attested on early Middle Kingdom and Canaanite scarabs. These variations show the concentric circles as an exclusive motif, each scarab displaying between two to six circles that are usually depicted close together, sometimes overlapping each other. Most examples are very small, similar in size to the so-called *rdi r^c* scarabs (**Pl. 37: passim**), while some, displaying identical variations of the design, are of average scarab size (**Pl. 37: 4-5, 24, 34**). Both groups include also cowroids (**Pl. 37: 1, 16-17, 21, 39**), and one example from Mayana is a three-scarab design amulet (**Pl. 37: 6**). The number and distribution of this type of scarabs mainly in Egypt and Nubia, and their rare occurrence in the Palestinian series (Mlinar 2001: 482-85) argue for their Egyptian Second Intermediate Period origin. A small number of examples displaying other variations of design class 4 in the Egyptian/Nubian series⁴³² are probably Canaanite imports considering the number of parallels in the Palestinian series and their distribution exclusively in the eastern Delta and upper Nubia (below, §IIIA 4).

Borders of concentric circles are an innovation of the Second Intermediate Period and not of the 12th Dynasty as suggested by Ward and Tufnell, who erroneously consider examples bearing names of 12th Dynasty kings as contemporaneous (Ward 1978b: 46; Tufnell 1984: 125; above, §IB 1). Ward notes that the initial occurrence of borders of concentric circles on design scarabs in the Palestinian series is not attested earlier than Jericho group III (Ward 1978b: 46), which coincides with stratum E/2 at Tell el-Dab`a (below §IIB 1). The typology of late Middle Kingdom scarabs presented above indicates that borders of concentric circles are not found on royal-name, private-name and design scarabs of this period. The Second Intermediate Period Egyptian/Nubian series include only six examples displaying borders of concentric circles, two bearing 12th Dynasty royal names (**Pl. 37: 47-48**)⁴³³ and three design scarabs (**Pl. 37: 49-51**).⁴³⁴ Borders of concentric circles occur, though rarely, on Second Intermediate Period royal-name scarabs (Tufnell 1984: Pls. 57, 59: 3263, 3321), which were almost certainly manufactured in Egypt (below, §IIB 1). These borders are not attested on private-name scarabs but they occur on design scarabs in the Palestinian series (Tufnell 1984: Pl. 22: subclass 4D), most examples displaying distinctive Canaanite characteristics (below, §IIIA 4, §IVA 4). The latter suggest a Canaanite origin for the few examples in the Egyptian/Nubian series. The motif enclosed by the border on a scarab from Esna (Downes 1974: 63, Group 245: 3) depicting a human figure holding branches confirms the Canaanite origin of this particular example (below, §IVA 10a). The origin of production of the examples bearing names of 12th Dynasty kings (**Pl. 37: 47-48**) remains inconclusive.

§IIA 5. Design class 5 – cross patterns

The evidence from the Second Intermediate Period Egyptian/Nubian series indicates that unlike most late Middle Kingdom designs, cross patterns are not attested on scarabs that can be securely assigned a Second Intermediate Period Egyptian origin. Scarabs bearing cross patterns in the Egyptian/Nubian series, which do not display Middle Kingdom characteristics include only three examples from Tell el-Dab`a (Mlinar 2001, no. 306 from stratum E/3, No. 510 from stratum E/1, No 613 from strata E/1-D/3), one from Tell el-Maskhuta (**Appendix Pl. 1: 13**), three from Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 39; Petrie 1906: Pl. 9: 139, 140), one from Koptos (Petrie 1896: Pl. 25: 130), one from Esna (Downes 1974: 61, Group 153: h), one from Aniba (Steindorff 1935: Pl. 31: 34), and one from Kerma (Reisner 1923: Pls. 40-41 II: 2). The small number of these scarabs, the distribution of more than half in the eastern Delta, and their numerous parallels in the Palestinian series (below) strongly argue

⁴³¹ e.g. Petrie 1906: Pl. 8: 47 from Tell el-Yehudiyeh; Brunton 1948: Pl. 43: 14 from Matmar; Petrie 1901: Pl. 41: 6 from Hu.

⁴³² Tell el-Dab`a: Mlinar 2001, nos. 306, 1034; Mlinar 2002: 229, No. 5; Tell el-Maskhuta: **Appendix Pl. 1: 2**; Tell el-Yehudiyeh: Petrie 1906: Pl. 7: 34, Pl. 9: 145; Ukma: Vila 1987: Pls. 5-6: 52/3; Kerma: Reisner 1923: Pls. 40-41 II: 2, 5.

⁴³³ See also design class 3D above.

⁴³⁴ The example from Mirgissa (**Pl. 37: 51**) was incorrectly considered as a royal-name scarab (Tufnell 1984: Pl. 63: 3502), see however Ryholt 1997: 65 and Ben-Tor et al. 1999: 64. The design is not found on private-name scarabs.

for their Canaanite origin.⁴³⁵ It is demonstrated below (§IIIA 5) that the popularity of design class 5 in the Palestinian series (Tufnell 1984: 125, Pl. 23) reflects its adaptation on Canaanite scarabs. Four scarabs displaying the design were found in strata G-F at Tell el-Dab`a, all of them displaying features of Mlinar's type III (**Pl. 30: 10-11, 14, Pl. 31: 3**), which indicate their production in the late Middle Kingdom local workshop at the site. There is no evidence to suggest the continuing production of this design at Tell el-Dab`a in the Second Intermediate Period.

§IIA 6. Design class 6 – coiled and "woven" patterns

The popularity of coiled and woven patterns in the Second Intermediate Period is clearly indicated in the Palestinian series (Tufnell 1984, Pls. 24-27), although it reflects primarily their adaptation and development on Canaanite scarabs (below, §IIIA 6, §IVA 6). The number of scarabs and cowroids displaying design class 6 in the Egyptian/Nubian Second Intermediate Period series is notably smaller, but sufficient to indicate Egyptian-manufactured examples. As noted above (§IA 6), Tufnell's subclasses of design class 6 have chronological and geographical significance and they are therefore considered in this study.

§IIA 6a. Design class 6A – Single line thread

Only isolated Second Intermediate Period examples displaying design class 6A are attested in the Egyptian/Nubian excavated series. Nevertheless the distinction between subclasses 6A1 (single line thread) and 6A2 (single line loops) is maintained in this chapter, as only the latter seem to occur on Second Intermediate Period Egyptian-manufactured examples. Three such examples are known: one from Tell el-Yehudiyeh (**Pl. 38: 1**), one from Qau (**Pl. 38: 2**), and one from Saï Island (**Pl. 38: 3**). The Tell el-Yehudiyeh example is a cowroid of the type associated with King Apophis (above, design class 3A4). It is interesting to note that both the Tell el-Yehudiyeh and Saï examples display the customary Second Intermediate Period pattern of design class 1E (above). Two unusual variations of design class 6A2 come from stratum F at Tell el-Dab`a (**Pl. 31: 5, 7**) displaying features of the locally produced scarabs of Mlinar's type III, which date from the final phase of the Middle Kingdom and the beginning of the Second Intermediate Period (above, §IIb 5c).

Examples displaying the single line thread (subclass 6A1) occur in the Palestinian series (Tufnell 1984: Pl. 24) where they represent primarily the adaptation of the design on Canaanite scarabs (below, §IIIA 6a1). The isolated examples of this design in the Egyptian/Nubian series are exclusively late Middle Kingdom heirlooms.⁴³⁶

§IIA 6b. Design class 6B – Convoluted coils

Tufnell's division of this design into three subclasses: 6B1 (coils), 6B2 (knot-like), 6B3 (varia), is based on the Palestinian series (Tufnell 1984: 125-27, Pls. 24-25), reflecting primarily variations occurring on Canaanite scarabs (below, §IIIA 6b1-2, §IVA 6b1). As in the case of the late Middle Kingdom series, Tufnell's distinction between classes 6B1 and 6B2 is irrelevant for the Second Intermediate Period Egyptian series, and subclasses 6B1 and 6B2 are discussed here as one.

§IIA 6b1. Design class 6B1-2 – convoluted coils

In contrast to the popularity of designs displaying convoluted coils in the late Middle Kingdom series (above §IA 6b), only a small number of examples come from the Second Intermediate Period excavated series. These include one example from Tell el-Dab`a (Mlinar 2001, no. 608 from strata E/1-D/3),⁴³⁷ one from Tell el-Maskhuta (**Appendix Pl. 1: 6**), two from Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 41; Petrie 1906: Pl. 9: 184),⁴³⁸ one from Mayana (Petrie and Brunton 1924: Pl. 43: 3),⁴³⁹ two from Matmar (Brunton 1948: Pl. 43: 30, 31), one from Esna (Downes 1974: 63, Group 245: 7), two from Aniba (Steindorff 1937: Pl. 56: 153, 156), one from Buhen (Randal-MacIver and Woolley 1911: Pl. 89: 10847), and one from Kerma (Reisner 1923: Pls. 40-41 II: 9). A comparison of this small corpus with the number of examples attested in the Palestinian series suggests a Canaanite ori-

⁴³⁵ The unique square plaque from Aniba displaying a cross pattern (Steindorff 1935: Pl. 31: 27) is most probably of the early 18th Dynasty considering the four frogs in high relief on the other side (see Keel 1995a: 69 for frog design amulets).

⁴³⁶ E.g. Steindorff 1937: Pl. 56: 147 from Aniba; Dunham and Janssen 1960: Pl. 121: 19 from Semna. The only possible exception is a unique example from Aniba displaying an unusual variation of design class 6A1 (Steindorff 1937: Pl. 56: 162); however, the back and side of this scarab are not presented and a late Middle Kingdom date cannot be ruled out.

⁴³⁷ The two locally made examples from strata G-F displaying Mlinar's type III features date from the late Middle Kingdom (**Pl. 30: 13, 15**).

⁴³⁸ The design on the scarab presented in Naville and Griffith 1890: Pl. 10: 42 argues for a late Middle Kingdom date, although no illustrations of the back and side are available to confirm it.

⁴³⁹ The particular pattern occurring on this scarab argues for a late Middle Kingdom date. The drawing of the back suggests a Second Intermediate Period date, yet it may not be accurate and cannot be checked as there is no published photograph of this scarab.

gin for most examples found in Egypt and Nubia. A Canaanite origin is suggested in particular for the example from Tell el-Maskhuta, the features of which show close similarity to those of the Canaanite scarabs from the site bearing design class 3D (above). The Tell el-Dab`a scarab, which displays a combination with design class 8C (below), exhibits Mlinar's type IV, which argues for a Canaanite origin (Mlinar 2004: 125-28). The Kerma example (Pl. 38: 4) is a cowroid of the type associated with the name of Apophis (above design class 3A4), which may suggest Egyptian origin.

§IIA 6b2. Design class 6B3 – convoluted coils, varia

The Middle Kingdom pattern displaying convoluted coils with two decorated ovals at both ends of the plinth, which was categorized by Tufnell under design class 6B3 (above, §IA 6b2), is attested on two examples in the Egyptian/Nubian Second Intermediate Period series. Both these examples come from Nubian cemeteries in Lower Nubia, one at Debeira (Säve-Söderbergh 1989: Pl. 42: 170/37: 10c), and one at Ukma (Vila 1987: Pls. 5-6: 52/4). The design on the Debeira scarab argues for a late Middle Kingdom date, which is corroborated by the C-type head of the scarab. The Ukma example, however, is a large cowroid of a type unknown in the Middle Kingdom, but resembles the Second Intermediate Period cowroids associated with the name of King Apophis (Pl. 38: 5). The likely Egyptian production of decorated ovals in the Second Intermediate Period, though not necessarily with coiled patterns, is supported by a scarab from Tell el-Yehudiyeh displaying the motif in association with design class 1E (Pl. 32: 3).⁴⁴⁰

§IIA 6c. Design class 6C – Encompassed coils

As noted above (§IA 6c) Tufnell's subclasses of the design: 6C1 – central 'x' cross; 6C2 – central twist; 6C3 – central cable; refer primarily to the Palestinian series (Tufnell 1984: 126-27). The Egyptian/ Nubian excavated series revealed a much smaller group displaying design class 6C, which nevertheless includes Tufnell's three subclasses.

§IIA 6c1. Design class 6C1 – encompassed, central x cross

Subclass 6C1 is attested only on a handful of examples, most of them in the eastern Delta; three from Tell el-Dab`a (Mlinar 2001, nos. 525 from stratum E/1, 804 from stratum D/3-2, and 910 from stratum D/2), two from Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 47; Petrie 1906: Pl. 9: 185), one from Matmar (Brunton 1948: Pl. 43: 32), one from Esna (Downes 1974: 60, Group 140: 3), and one from Semna (Dunham and Janssen 1960: Pl. 122: 17). The Canaanite origin of this small group is indicated by the small number of examples in the Egyptian/Nubian series, their distribution in the eastern Delta, and the numerous parallels in the Palestinian series (below, §IVA 6c1-3).

§IIA 6c2. Design class 6C2 – encompassed, central twist

Subclass 6C2 is attested in the Egyptian/Nubian series on an even smaller number of examples than subclass 6C1. These include two examples from Tell el-Dab`a (Mlinar 2001, nos. 905 from stratum D/2, and 1068 from an unclear context), two from Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 46; Petrie 1906: Pl. 8: 46), one from Qau (Brunton 1930: Pl. 19: 30), one from Aniba (Steindorff 1937: Pl. 56: 149), and one from Kerma (Reisner 1923: Pls. 40-41 II: 61). As in the case of design class 6C1, the Canaanite origin of this group is indicated by the small number of examples in the Egyptian/Nubian series, and by the numerous parallels in the Palestinian series. Tufnell includes in subclass 6C2 also examples with a central twist displayed vertically.⁴⁴¹ These, however, are always associated with patterns identical to those displaying a central cable, and they are therefore categorized here under subclass 6C3.

§IIA 6c3. Design class 6C3 – encompassed coils, central cable

Designs comprising a central cable on late Middle Kingdom scarabs differ from those attested in the Palestinian series and in the Egyptian Second Intermediate Period series. The latter usually display a central cable flanked by the so-called "Hyksos sides" customarily occurring on Second Intermediate Period royal-name scarabs (above, design class 3E4), or stylized variations of this motif. The group displaying subclass 6C3 in the Egyptian/Nubian series includes one example from Tell el-Dab`a (Pl. 38: 6), two from Tell el-Yehudiyeh (Pl. 38: 7-8), five from Qau (Pl. 38: 9-13), two from Koptos (Pl. 38: 14-15), one from Esna (Pl. 38: 16), one from Aniba (Pl. 38: 17), one from Ukma (Pl. 38: 18), and one from Kerma (Pl. 38: 19). As noted above, most examples display variations of design class 3E4, except for two of the Qau examples (Pl. 38: 10-11), both displaying highly unusual designs. Although

⁴⁴⁰ The example from Tell el-Dab`a displaying decorated ovals in association with design class 6C1 (Mlinar 2001, no. 804 from stratum D/3-2) is most probably of Canaanite origin (below, §IVA 6c1).

⁴⁴¹ E.g. Tufnell 1984: Pl. 27: 2166, 2193, 2197, 2201.

not much larger than the groups displaying subclasses 6C1 and 6C2, this group most probably includes mainly scarabs manufactured in Egypt. This is indicated by its close association with design class 3E4 (above), and by the fact that the design is extremely rare in the Palestinian series except at Tell el-`Ajjul (Tufnell 1984: Pl. 27; below, §IVA 3e2). Some Canaanite imitations of design class 6C3 probably exist (below, §IIIA 6c3, §IVA 6c3), but the bulk of the known examples seem to be of Egyptian manufacture.⁴⁴² Their small number in the Egyptian/Nubian series probably reflects, as in the case of other designs, the poor state of preservation of the cemeteries comprising these series and not the actual popularity of the design on Second Intermediate Period Egyptian scarabs.

§IIA 7. Design class 7 – scroll borders

The scarcity of design scarabs bearing scroll borders in the Egyptian/Nubian series is striking even at a casual glance, and the number decreases even further when late Middle Kingdom heirlooms are disregarded. This situation stands in complete contrast to the Palestinian series (Tufnell 1984: Pls. 28-33) where the numerous examples displaying scroll borders attest to the great popularity of the design on Canaanite scarabs (below, §IIIA 7, §IVA 7). Unlike in the case of design scarabs, scroll borders are found on a noteworthy number of Second Intermediate Period royal-name scarabs (Tufnell 1984: Pls. 56-62). The latter attest to the occurrence of the design on contemporary scarabs manufactured in Egypt. This is confirmed by examples displaying scroll borders among Second Intermediate Period private-name scarabs (Martin 1971: Pl. 5: 6-12; Pl. 11: 5, 8, 10-13). A somewhat similar situation exists with late Middle Kingdom scarabs; the relatively small number of design scarabs displaying scroll borders in comparison with the large number of contemporary private-name scarabs bearing the design (above, §IA 7). The evidence suggests that scroll borders were used primarily on name scarabs in Egypt during both the Middle Kingdom and the Second Intermediate Period, and less commonly on design scarabs. The discussion in this chapter therefore refers, as in the case of late Middle Kingdom scarabs, also to royal-name and private-name scarabs to confirm the existence and/or popularity of particular variations.

Based mainly on the Palestinian series Tufnell distinguishes three main subclasses of scroll borders (7A, 7B, 7C) that are further divided into twenty-three secondary subclasses (Tufnell 1984: 127-31). The surviving corpus displaying the design in the Second Intermediate Period Egyptian/Nubian series and among contemporary royal-name and private-name scarabs, includes only very few of Tufnell's secondary subclasses. The discussion here therefore refers to the three main subclasses, noting only relevant secondary subclasses.

§IIA 7a. Design class 7A – Continuous scroll border

Tufnell divides this design class into two main subclasses: 7A1 – continuous round scrolls; 7A2 – continuous oblong scrolls. Unlike in the case of late Middle Kingdom scarabs, both these subclasses are attested only on a handful of examples in the Egyptian/Nubian series. Moreover, both are associated with identical designs and they are therefore discussed here together.

Design class 7A1 occurs on one example from Tell el-Dab`a (Mlinar 2001, no. 703 from stratum D/3), one from Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 24), one from Mostagedda (Brunton 1937: Pl. 69: 10), and one from Buhen (Randall-MacIver and Woolley 1911: Pl. 57: 10090). Design class 7A2 occurs on three examples from Tell el-Dab`a (Mlinar 2001, nos. 512 from stratum E/1, 618 from strata E/1-D/3, and 1011 from an unclear context), one from Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 2), one from Mayana (Petrie and Brunton 1924: Pl. 43: 1), one from Fadrus (Säve-Söderbergh and Troy 1991: Pl. 11: 185/86:1a), and one from Buhen (Randall-MacIver and Woolley 1911: Pl. 56: 10026). The hieroglyphs enclosed in the continuous scroll borders of both subclasses frequently include, as in the case of late Middle Kingdom scarabs (above, §IA 7a), combinations with the sign *nfr*. The common late Middle Kingdom combination *nfr r^c* is attested, though rarely, with continuous scroll borders on Second Intermediate Period scarabs (Mlinar 2001, no. 1011 = **Pl. 39: 4**) also enclosed by linked scrolls (Mlinar 2001, no. 601). Examples of both subclasses 7A1 and 7A2 enclose the combination of *nfr* and *nlj* (Mlinar 2001, nos. 512, 703 from Tell el-Dab`a; Naville and Griffith 1890: Pl. 10: 24 from Tell el-Yehudiyeh; Randall-MacIver and Woolley 1911: Pl. 56: 10026 from Buhen), occasionally with other signs (Brunton 1937: Pl. 69: 10 from Mostagedda), and they also enclose throne names of 12th Dynasty kings (Mlinar 2001, no. 618 from Tell el-Dab`a = **Pl. 39: 3**; Randall-MacIver and Woolley 1911: Pl. 57: 10090 from Buhen = **Pl. 39: 1**; Naville and Griffith 1890: Pl. 10: 2 from Tell el-Yehudiyeh = **Pl. 39: 5**).

The small number of examples displaying design class 7A in the Egyptian/Nubian series compared with the numerous examples in the Palestinian series (Tufnell 1984: Pls. 28-29, and below §IVA 7a), argue for the Canaanite origin of the former. Nevertheless, a comparison with the enclosed signs on many of the Palestinian examples, which frequently consist of incorrect hieroglyphs or variations of design class 3C (below §IVA 7a), suggests a pos-

⁴⁴² Tufnell notes that the number of examples displaying the design at Tell el-`Ajjul is just half the total of examples displaying design classes 6C1 and 6C2 (Tufnell 1984: 127).

sible Egyptian origin for some examples. These include a scarab bearing the combination *nfr r^c* (PI. 39: 4), and scarabs bearing 12th Dynasty royal names (PI. 39: 1, 3, 5). An unprovenanced scarab in the Basel collection displays design class 7A1 enclosing the Egyptian version of design class 3A4 (PI. 39: 2), which argues for the Egyptian origin of the scarab.

A likely Canaanite origin can be suggested for the scarab from Mayana, as it displays the scroll border enclosing a combination of design classes 3B5 and 3B6 depicting the *swt* plants facing the same direction (above, design class 3B5). The origin of the other examples bearing design class 7A in the Egyptian/Nubian series remains inconclusive; their designs do not offer categorical evidence and no illustrations of their features have been published. No royal-name or private-name scarabs of the Second Intermediate Period are attested with design class 7A.

§IIA 7b. Design class 7B – Paired scrolls, with a loop at the top with a curved line uniting the sides at the base

Tufnell's division of paired scroll borders into subclasses (7B1 – 7B4), which is based on the number of paired scrolls (from one to four respectively) and is further divided according to the shape of the scrolls (round and oblong), is discussed above (§IA 7b). The scarcity of all subclasses of paired scrolls on late Middle Kingdom design scarabs and the great popularity of some types on contemporary private-name scarabs are demonstrated above (§IA 7b). As in the case of most other designs, the popularity of paired scrolls in the Palestinian series reflects primarily the adaptation of the design on Canaanite scarabs (below, §IVA 7b). In contrast to the Palestinian series, the Second Intermediate Period Egyptian/Nubian series include only a handful of examples displaying the design, which as in the case of design class 7A, are discussed here together. Not a single example among them displays round scrolls, and this is also the case with the handful of contemporaneous royal-name scarabs bearing design class 7B (below, §IIB 1).

Scarabs displaying 7B paired scroll borders in the Egyptian/Nubian excavated series include two examples from Tell el-Dab'a (Mlinar 2001, nos. 705 – 7B2, and 1013 – 7B1), three from Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 1 – 7B3; Petrie 1906: Pl. 7: 6-7 – 7B3), one from Mostagedda (Brunton 1937: Pl. 69: 16 – 7B3), two from Esna (Downes 1974: 62-64, Group 230: 2, Group 263: 1 – 7B3), one from Debeira (Säve-Söderbergh 1989: Fig. 37: 65/71:1 – 7B3 = PI. 39: 6), one from Semna (Dunham and Janssen 1960: Pl. 121: 7 – 7B3 = PI. 39: 7), and one from Kerma (Reisner 1923: Fig. 168: 41 – 7B2). Even this small corpus may include late Middle Kingdom heirlooms, as may be the case with two of the Tell el-Yehudiyeh scarabs (Petrie 1906: Pl. 7: 6-7) and both examples from Esna, the publication of which does not include features that could provide conclusive evidence. Each of these four scarabs displays three pairs of oblong scrolls (subclass 7B3), the most common type of late Middle Kingdom scroll border (above, §IA 7b3). As noted above, the other examples include one scarab displaying one pair of scrolls (subclass 7B1), two scarabs displaying two pairs of scrolls (subclass 7B2), and four scarabs displaying three pairs of scrolls (subclass 7B3).

A Canaanite origin is indicated for the scarabs displaying one and two pairs of scrolls considering their almost complete absence in the Egyptian/Nubian series and their popularity in the Palestinian series (Tufnell 1984, Pl. 30). The Canaanite origin of these scarabs is further indicated by the complete absence of subclasses 7B1 and 7B2 on Second Intermediate Period royal-name and private-name scarabs. A Canaanite origin is also suggested for the Tell el-Yehudiyeh scarab displaying the name of the god Ptah (see design class 3D above). The particular form of the sign *k3* on the scarab from Mostagedda also argues for a likely Canaanite origin (Ben-Tor 1997: 171-73, Fig. 4), but the origin of the other two examples displaying three pairs of scrolls (PI. 39: 6-7) is inconclusive. The Egyptian production of design class 7B3 in the Second Intermediate Period is indicated by the occurrence of the design on royal-name scarabs of the period (Tufnell 1984, Pls. 56-57, 62; below, §IIB 1).

§IIA 7c. Design class 7C – Paired scrolls, when the loop at the top and /or base is broken or omitted

In contrast to design classes 7A and 7B, most subclasses of design class 7C are completely absent on both design and private-name scarabs of the late Middle Kingdom (above §IA 7c). Also in contrast to design classes 7A and 7B design class 7C is extremely rare on Canaanite scarabs (Tufnell 1984: Pl. 32; below §IVA 7c). Moreover, particular subclasses of design class 7C constitute the most distinctive characteristics of royal-name and private-name scarabs of the Second Intermediate Period (Martin 1971: Pls. 5, 11; Tufnell 1984: 130, Pls. 56-59). These subclasses usually consist of oblong scrolls and display two or three pairs (Tufnell's classes 7C2 and 7C3). Design class 7C with round scrolls is far less common but occurs on two private-name scarabs (PI. 39: 15-16) and a design scarab (PI. 39: 17).

The Second Intermediate Period Egyptian/Nubian series yielded only isolated examples displaying design class 7C. These include one royal-name scarab from Tell el-Yehudiyeh (Petrie 1906: Pl. 9: 124), one design scarab from Qau (Brunton 1930: Pl. 19: 22 = PI. 39: 8), two royal-name scarabs from Hu (Petrie 1901: Pl. 41: 11, 12), one royal-name scarab from Dakka (Firth 1915: Pl. 41: 1), and one private-name scarab from Ukma (Vila 1987: Pls. 5-

6: 56/2). As noted above, the particular scroll borders associated with Second Intermediate Period royal-name and private-name scarabs occur only rarely on design scarabs. Published examples include only the scarab from Qau (Pl. 39: 8), and the scarab from Basel noted above (Pl. 39: 17). The signs enclosed in the scroll borders on these examples suggest a likely Egyptian origin. An example from Tell el-ʿAjjul displaying pseudo- hieroglyphs enclosed in the scroll border (Tufnell 1984: Pl. 32: 2371) argues for the adaptation of the design on Canaanite scarabs (below, §IVA 7c2-3).

Royal-name, private-name, and design scarabs bearing design class 7C display exclusively subclasses 7C2 and 7C3, depicting two and three paired scrolls respectively (Pl. 39: 9-17, Pl. 40: 1-5; Tufnell 1984: Pls. 57-60). The choice between subclass 7C2 and 7C3 does not seem to have significant chronological implications, as both are attested with royal-name scarabs of the same kings, and private-name scarabs of the same official.⁴⁴³ The complete absence of design class 7C at Tell el-Dabʿa must be related to the almost complete absence of royal-name and private-name scarabs at the site. Although most likely produced at Tell el-Dabʿa, royal-name and private-name scarabs of the Second Intermediate Period rarely survived there, or elsewhere in the excavated series, undoubtedly as a result of massive plundering in later periods.

The variation of subclass 7C3 depicting the paired scrolls as two confronted serpents is extremely rare in the Second Intermediate Period, occurring only on two examples: a design scarab from Kerma (Reisner 1923: Pls. 40-41 II: 57) and a royal-name scarab from Tell el-Yehudiyeh (Petrie 1906: Pl. 9: 124). A Canaanite or Egyptian origin of the Kerma example is difficult to determine considering the rare occurrence of the design. For the Tell el-Yehudiyeh example bearing the name of Khyab see below (§IIB 1).

§IIA 8. Design class 8 – rope borders

As in the case of scroll borders, the scarcity of rope borders in the Second Intermediate Period excavated series is striking when compared with the number of examples in the late Middle Kingdom and the Palestinian series. Moreover, rope borders are almost completely absent on contemporary royal-name and private-name scarabs.⁴⁴⁴ As in the case of late Middle Kingdom scarabs, Tufnell's subclasses 8A and 8B are discussed here as one.

§IIA 8a. Design class 8A – twisted strand

The small group displaying rope borders in the Egyptian/Nubian excavated series exhibits primarily Tufnell's subclass 8A, and a few example of subclass 8AA attesting to the continuation of both types into the Second Intermediate Period. The group includes two examples from Tell el-Dabʿa (Mlinar 2001, nos. 706 = Pl. 40: 6, and 709 from stratum D/3 = Pl. 40: 15), two from Tell el-Yehudiyeh (Pl. 40: 7-8),⁴⁴⁵ one from Koptos (Pl. 40: 9),⁴⁴⁶ one from Esna (Pl. 40: 10), one from Debeira (Säve-Söderbergh 1989: Fig. 38: 170/37:10A), one from Mirgissa (Pl. 40: 25),⁴⁴⁷ one from Ukma (Pl. 40: 12), and three from Kerma (Pl. 40: 11, 13; Reisner 1923: Pls. 40-41 II: 10). The most common design enclosed in the rope border on these examples is a variation of design class 9C (below) depicting a scarab flanked by two uraei in longitudinal setting, a design that is well attested on Canaanite scarabs without a rope border (Tufnell 1984: Pl. 37). The four attestations of this design in the Egyptian/Nubian series (Pl. 40: 8-11), its rare occurrence in the Palestinian series in association with a rope border,⁴⁴⁸ and its continuation into the New Kingdom (Amiet et al. 1996: 51, no. 15) suggest a likely Egyptian origin.

Other probable Egyptian Second Intermediate Period designs enclosed in a type 8A or 8AA rope border display the formulae *dsr-hpr-r^c* and *nḥw-hpr-r^c* (Pl. 40: 17-25), both incorrectly considered as representing royal names (Ward in Tufnell 1984: 176-78, Pl. 63), a misconception recently corrected by Ryholt (1997: 65).⁴⁴⁹ Only one examples of this type was found in the Egyptian/Nubian excavated series,⁴⁵⁰ the scarab from the Kerma cemetery at

⁴⁴³ E.g. scarabs of King *γ^cqbhr* (Tufnell 1984: Pl. 57: 3225-3231) and King *šš* (Tufnell 1984: Pl. 59: 3323-3339), and scarabs of the King's Acquaintance, *s3-hthr* (Hornung and Staehelin 1976, No. 508; Ben-Tor 1989: 61, No. 20). It should be noted, however, that the royal-name series suggests placing design class 7C3 slightly earlier than 7C2 (below, §IIB 1).

⁴⁴⁴ Only three Second Intermediate Period royal-name scarabs displaying a rope border are known, one bearing the birth name of King Sheshi, and two bearing a defective form of the throne name of King Apophis (Tufnell 1984: Pls. 59, 62: 3340, 3461, 3462).

⁴⁴⁵ The example presented in Petrie 1906: 146 displays characteristics suggesting a New Kingdom date. For the continuation of the design to the New Kingdom see Amiet et al. 1996: 51, No. 15.

⁴⁴⁶ Displaying design class 8AA.

⁴⁴⁷ From the Kerma cemetery.

⁴⁴⁸ Isolated examples were found in Palestinian series, e.g. at Kabri (Mizrachy in Kempinski 2002: Fig. 9.6), and Lachish (Tufnell 1958: Pl. 32: 132).

⁴⁴⁹ See also Ben-Tor et al 1999: 64.

⁴⁵⁰ The scarab from the Kerma cemetery at Mirgissa bearing the formula *nḥw-hpr-r^c* (Vercoutter 1970: Pl. 26: 3) does not display a rope border and is therefore not considered here.

Mirgissa noted above depicting the formula $\underline{dsr-lpr-r^c}$ flanked by two falcon-headed figures (PL. 40: 25). Falcon-headed figures of this type constitute a distinctive Canaanite motif (below, §IVA 10a) and it is difficult to determine if their occurrence on this scarab indicates its Canaanite origin or the adaptation of this motif on Egyptian scarabs of this period. No parallel for this scarab is known and its origin therefore remains inconclusive. It is interesting to note that the Palestinian series include a scarab from Gezer bearing the formula $\underline{dsr-lpr-r^c}$ flanked by uraei and branches (PL. 40: 24), thereby combining the design noted above depicting a scarab flanked by uraei with the formula $\underline{dsr-lpr-r^c}$. Like the falcon-headed figures, branches also constitute a distinctive Canaanite motif, (below, §IVA 1a); however, unlike in the case of falcon-headed figures, there is evidence for the adaptation of branches on contemporary royal-name scarabs manufactured in Egypt (below, §IIB 1). Nevertheless, as in the case of the Mirgissa scarab, the mixture of motifs on this scarab does not allow us to establish its origin, which remains inconclusive.⁴⁵¹

One of the Tell el-Dab`a examples noted above (PL. 40: 15), a scarab from Nubt (PL. 40: 14), and a scarab from Buhen (PL. 40: 16) depict a scarab and sun disk ($\underline{lpr-r^c}$) enclosed in the scroll border. A parallel from group II at Jericho (Tufnell 1984: Pl. 34: 2411) argues for an early Second Intermediate Period date for this particular design (below, introduction to chapter III), but there is no evidence to establish its origin. The other Tell el-Dab`a example (PL. 40: 6) displays a symmetric arrangement of hieroglyphs divided by a double line – a typical late Middle Kingdom pattern (above, §IA 3b5). The Second Intermediate Period date of this scarab is indicated by the casual form of the *swt* plants (above design class 3B5) and by the rope border, which is not attested on late Middle Kingdom examples bearing this particular symmetric pattern. The origin of this scarab is inconclusive as no parallels are attested in the Egyptian or the Palestinian series.

Two of the examples displaying design class 8A in the Egyptian/Nubian series, one from Ukma (PL. 40: 12) and one from Kerma (PL. 40: 13), are typical Second Intermediate Period cowroids that argue for a likely Egyptian origin (above, design class 6B). Another cowroid of this type with design class 8A comes from Tell el-Yehudiyeh, depicting the rope border enclosing a group of misrendered hieroglyphs (PL. 40: 7). This example has a flower decorating its back, and similar examples though coming from the Palestinian series⁴⁵² support an Egyptian Second Intermediate Period origin (below, §IIB). The origin of the example from Debeira and the third example from Kerma, displaying respectively the border enclosing a symmetric arrangement of hieroglyphs and a spiral, is more likely to be Canaanite rather than Egyptian.

§IIA 8b. Design class 8C – full "twisted" cable

As demonstrated above (§IA 8b) design class 8C is far less common on late Middle Kingdom scarabs than design class 8A, and this is also the case in the Second Intermediate Period. The Egyptian/Nubian excavated series yielded only an example at Mirgissa (PL. 40: 26), and an example at Tell el-Dab`a displaying a combination of design classes 8C and 6B (PL. 40: 27). The Mirgissa scarab depicts the twisted border enclosing three poorly executed hieroglyphs displayed in a vertical line and including a *nfr*, *ꜥnl*, and an unclear sign between them. The Tell el-Dab`a scarab depicts the twisted border enclosing two well-executed *nfr* signs.

Design class 8C is also extremely rare in the Palestinian series (Tufnell 1984: Pl. 35)⁴⁵³ and the origin of most examples displaying it is therefore inconclusive. These isolated examples merely indicate, based on the back types of the scarabs from Mirgissa and the scarab from Tell el-`Ajjul (Keel 1997: 221, no. 347), the continuation of the design into the Second Intermediate Period.

§IIA 9. Design class 9 – Animals and heraldic beasts

In contrast to the scarcity of design class 9 in the late Middle Kingdom series (above, §IA 9) the design is attested on a significant number of examples in the Egyptian/Nubian Second Intermediate Period series. Most of these examples, however, constitute Canaanite imports. This is indicated primarily by the number of parallels in the Palestinian series and by particular Levantine-inspired attributes (below, §IVA 9). The designs occurring on these Canaanite imports, which display Egyptian as well as Levantine affinity, are discussed in association with the Palestinian series (below, §IVA 9). The discussion here merely refers to the Canaanite imports found in the Egyptian

⁴⁵¹ A similar design occurs on a scarab from Kabri (Mizrachy in Kempinski 2002: 328, Fig. 9.2: 10) with a crocodile but not a rope border – a Canaanite motif that argues for the Canaanite origin of this scarab, but does not necessarily indicate a Canaanite origin for the Gezer example.

⁴⁵² E.g. Keel 1997: 211-259, Nos. 321, 458 from Tell el-`Ajjul. These examples display a slightly different type of cowroid (see Keel 1995a: 79-80, types III and IV).

⁴⁵³ Of the four examples presented by Tufnell, the scarab from Tell el-Far`ah (S) (Petrie 1930: Pl. 10: 76 = Tufnell 1984: Pl. 35: 2474) displays design and features that argue for a late Middle Kingdom Egyptian origin, leaving only three Second Intermediate Period examples.

tian/Nubian excavated series, with an attempt to distinguish examples of Egyptian Second Intermediate Period origin.

It is important to note the relatively large number of Canaanite imports bearing design class 9 in the Egyptian/Nubian series, while contemporary examples of Egyptian manufacture are scarce. Egyptian imitations of Canaanite variations of design classes 9 are extremely rare and the excavated series did not yield examples attesting to the continuing production of late Middle Kingdom variations of design classes 9. The distribution of the Canaanite imports displaying design class 9 is attested from the eastern Delta in the north to Kerma in the south, but their numbers in the eastern Delta exceeds that of all other regions, confirming their Levantine origin.

§IIA 9a. Design class 9B – antelopes

Horned animals of the type defined by Tufnell as antelopes⁴⁵⁴ occur on design amulets of the First Intermediate Period (Wiese 1996: Pls. 23, 24) and on scarabs of the early (Ward 1978a: 70, Fig. 15: 18, Pls. 6, 8: 174, 220) and late Middle Kingdom (above, §IA 9), attesting to the long tradition of their representation in Egyptian glyptic art. The Second Intermediate Period Egyptian/Nubian series yielded quite a representative group displaying design class 9B. Four examples were found at Tell el-Dab`a (Mlinar 2001, nos. 1059, 1062, 1064, 1072),⁴⁵⁵ two at Tell el-Maskhuta (**Appendix Pl. 1: 5, Appendix Pl. 2: 1**),⁴⁵⁶ three at Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 11; Petrie 1906: Pl. 6: 5, Pl. 9: 155), two at Qau (Brunton 1930: Pl. 19: 15, 36), one at Nubt (Petrie and Quibell 1896: Pl. 81: 115), two at Esna (Downes 1974: 61, Group 190: 1, Group 198: ii4), one at Buhen (Randall-MacIver and Woolley 1911: Pl. 57: 10072), two at Mirgissa (Vercoutter 1975: Fig. 21: 7, Fig. 27: 2), one at Debeira (Säve-Söderbergh 1989: Fig. 35: 170/23: 2), one at Semna (Dunham and Janssen 1960: Pl. 121: 25), and two at Kerma (Reisner 1923: Pls. 40-41 II: 77, 78). Based on the large number of parallels in the Palestinian series there is little doubt as regards the Canaanite origin of all these examples (below, §IVA 9).

As shown above (§IA 9), the late Middle Kingdom series did not yield even a single example displaying design class 9B. Nevertheless, the only examples in the Egyptian/Nubian excavated series that can be assigned to Egyptian manufacture are scarabs of Mlinar's type II from Tell el-Dab`a, of the local workshop dating from the late Middle Kingdom (**Pl. 30: 2, 4**). The production of these scarabs in the local workshop at Tell el-Dab`a is indicated by their distinctive features, which differ notably from those of late Middle Kingdom scarabs manufactured at the capital (above, §IIb 5c). The animal is depicted in a reclining posture with its front and hind legs bent inwards under the body, a posture that is not attested on any of the Canaanite examples listed above. It is attested, however, on a late Middle Kingdom scarab from a secondary context at Carthage (**Pl. 19: 12**), which like one of the Tell el-Dab`a scarabs (**Pl. 30: 4**) displays also design class 10. This scarab suggests a late Middle Kingdom prototype for the form of the horned animal on the Tell el-Dab`a scarabs.

None of the other examples displaying design class 9B in the Egyptian/Nubian series suggests an Egyptian origin. An unusual example among them is a hedgehog design amulet from a late MBIIB context at Tell el-Maskhuta (**Appendix Pl. 2: 1**). It depicts the horned animal in a striding posture like the great majority of the Canaanite examples (Tufnell 1984, Pl. 36), and a stylized *s3* sign above the animal's back, which is so far unique. Although no other example depicting this particular sign with design class 9B is known, misrendered hieroglyphs above the antelope's back are attested, usually of the sign *ꜥ* (Tufnell 1984: Pl. 36: 2496, 2497, 2500, 2505). A likely Canaanite origin for this unique example is further indicated by the fact that there is no evidence for Second Intermediate Period Egyptian examples of design class 9B, while there is evidence attesting to the Canaanite production of hedgehog design amulets (Keel 1995a: 69-70).

§IIA 9b. Design class 9C – cobras confronted

Unlike design class 3B1, which depicts the confronted cobras as an element in symmetric designs, design class 9C depicts them on either side of a central sign or figure, usually deeply cut into the surface of the scarab's base and displayed in longitudinal setting (Tufnell 1984, Figs. 37-38). Tufnell distinguishes five categories of design class 9C, based exclusively on the Palestinian series (Tufnell 1984: 132-33):

1. With signs
2. With figures
3. With hawk(s)
4. With long tail
5. With animals or heraldic beasts

⁴⁵⁴ For a more accurate identification of these horned animals see Keel 1990a: 263-66.

⁴⁵⁵ All of them from unclear contexts.

⁴⁵⁶ From MBIIB contexts.

It should be noted that these categories frequently display a mixture with other subclasses of design class 9 as well as design class 10.⁴⁵⁷ Such a mixture is in fact attested for most of the subclasses of the two figurative designs 9 and 10 (below).

The Egyptian/Nubian series yielded a relatively large group displaying design class 9C. Two examples come from Tell el-Dab'a (displaying subclass 9C3,⁴⁵⁸ and 3C5),⁴⁵⁹ four from Tell el-Maskhuta (three displaying subclass 9C2, and one displaying subclass 9C4),⁴⁶⁰ and nine from Tell el-Yehudiyeh (five displaying subclass 9C1,⁴⁶¹ two displaying subclass 9C3,⁴⁶² one displaying subclass 9C4,⁴⁶³ and one displaying subclass 9C5).⁴⁶⁴ The Mayana cemetery yielded one example (displaying subclass 9C3),⁴⁶⁵ one was found at Matmar (displaying subclass 9C2),⁴⁶⁶ two at Mostagedda (one displaying subclass 9C3,⁴⁶⁷ and one displaying subclass 9C5),⁴⁶⁸ three at Qau (displaying subclass 9C5),⁴⁶⁹ and two at Koptos (one displaying subclass 9C1,⁴⁷⁰ and one displaying subclass 9C4).⁴⁷¹ Three examples were found at Esna (one displaying subclass 9C1,⁴⁷² one displaying subclass 9C2,⁴⁷³ and one displaying subclass 9C4),⁴⁷⁴ one at Aniba (displaying subclass 9C4),⁴⁷⁵ two at Debeira (one displaying subclass 9C1,⁴⁷⁶ and one displaying subclass 9C4),⁴⁷⁷ and two at Buhen (one displaying subclass 9C1,⁴⁷⁸ and one displaying subclass 9C5).⁴⁷⁹ Three examples come from Mirgissa (one displaying subclass 9C3,⁴⁸⁰ one displaying subclass 9C4,⁴⁸¹ and one displaying an unusual variation of subclass 9C5).⁴⁸² One example comes from Semna (displaying subclass 9C2),⁴⁸³ two from Ukma (displaying subclass 9C3,⁴⁸⁴ and subclass 9C5),⁴⁸⁵ and six from Kerma (two displaying subclass 9C1,⁴⁸⁶ three displaying subclass 9C2,⁴⁸⁷ and one displaying subclass 9C5).⁴⁸⁸

This considerable group includes all of Tufnell's categories of the design, nevertheless, the number of parallels in the Palestinian series argues for the Canaanite origin of all five categories, and almost all variations attested in the Egyptian Nubian series (below, § x). The evidence provided by Egyptian imitations of Canaanite designs (above, design classes 3A4, 3C, 3E) argues against Egyptian imitations of design class 9C as no stylistic differences are attested between the examples found in the Egyptian/Nubian series and those found in the Palestinian series. The only possible exceptions are those displaying class 9C1 enclosed in a rope border, which are discussed above under design class 8A (**Pl. 40: 8-11**), the scarab depicting long tailed uraei (class 9C4) flanking the formula

⁴⁵⁷ E.g. Examples categorized under 9C2 are also categorized under 10A or 10C (Tufnell 1984: Pls. 37, 44, 47), examples categorized under 9C3 are also categorized under 9D (Tufnell 1984: Pls. 37, 39), and examples categorized under 9C4 are also categorized under 10A (Tufnell 1984: Pls. 38, 44-45).

⁴⁵⁸ Mlinar 2001, no. 702 from stratum D/3.

⁴⁵⁹ Mlinar 2001, no. 1070 from unclear context.

⁴⁶⁰ Respectively **Appendix Pl. 2: 9, Appendix Pl. 1: 4, Appendix Pl. 2: 3, Appendix Pl. 2: 10.**

⁴⁶¹ Petrie 1906: Pl. 7: 10, Pl. 8: 43, Pl. 9: 120, 121, 146.

⁴⁶² Naville and Griffith 1890: Pl. 10: 14, Petrie 1906: Pl. 9: 154.

⁴⁶³ Petrie 1906: Pl. 7: 28.

⁴⁶⁴ Naville and Griffith 1890: Pl. 10: 9.

⁴⁶⁵ Petrie and Brunton 1924: Pl. 43: 23.

⁴⁶⁶ Brunton 1948: Pl. 43: 25.

⁴⁶⁷ Brunton 1937: Pl. 69: 37.

⁴⁶⁸ Brunton 1937: Pl. 69: 33.

⁴⁶⁹ Brunton 1930: Pl. 19: 37, 38, 39.

⁴⁷⁰ Petrie 1896: Pl. 25: 83.

⁴⁷¹ Petrie 1896: Pl. 25: 82.

⁴⁷² Downes 1974: 66, Group 355: 16.

⁴⁷³ Downes 1974: 62, Group 223: 8.

⁴⁷⁴ Downes 1974: 65, Group 320: 2.

⁴⁷⁵ Steindorff 1935: Pl. 31: 22.

⁴⁷⁶ Säve-Söderbergh 1989: Pl. 42: 170/20: 3B.

⁴⁷⁷ Säve-Söderbergh and Troy 1991: Pl. 9: 64/4: 9.

⁴⁷⁸ Randall-MacIver and Woolley 1911: Pl. 96: 10900C.

⁴⁷⁹ Randall-MacIver and Woolley 1911: Pl. 56: 10044.

⁴⁸⁰ From the Kerma cemetery (Vercoutter 1970: Pl. 26: 5).

⁴⁸¹ Vercoutter 1975: Fig. 21:1.

⁴⁸² From the Kerma cemetery (Vercoutter 1970: Pl. 26: 6).

⁴⁸³ Dunham and Janssen 1960: Pl. 122: 33.

⁴⁸⁴ Vila 1987: Pls. 5-6: 50/1.

⁴⁸⁵ Vila 1987: Pls. 5-6: 55/4.

⁴⁸⁶ Reisner 1923: Pls. 40-41 II: 75, 76.

⁴⁸⁷ Reisner 1923: Pls. 40-41 II: 87, Pl. 42 I: 7, 8.

⁴⁸⁸ Reisner 1923: Pls. 40-41 II: 74.

nwb-lpr-r^c (Pl. 40: 28) and the unique example from the Kerma cemetery at Mirgissa displaying the uraei flanking a baboon (Pl. 40: 29).

§IIA 9c. Design class 9D – crocodiles

Like design classes 9B and 9C, design class 9D is well represented in the Second Intermediate Period Egyptian/Nubian series, and as in the case of design class 9C, most examples display a mixture with other subclasses of Tufnell's design classes 9 and 10. The Egyptian/Nubian series yielded four examples at Tell el-Dab`a (Mlinar 2001, no. 702, from stratum D/3, No. 913 from stratum D/3-2, and No. 1062 from unclear context; Mlinar 2002: 245-49, No. 13 from stratum D/3-2) one at Tell el-Maskhuta (**Appendix Pl. 1: 5**),⁴⁸⁹ nine at Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 7, 8, 12, 13; Petrie 1906, Pl. 8: 43, Pl. 9: 157, 158, 159, 160), one at Mostagedda (Brunton 1937: Pl. 69: 36), one at Nubt (Petrie and Quibell 1896: Pl. 81: 112), one at Esna (Downes 1974: 63, Group 242: 3), one at Aniba (Steindorff 1937: Pl. 55: 75), one at Fadrus (Säve-Söderbergh and Troy 1991: Pl. 10: 185/12: 1), one at Buhen (Randall-MacIver and Woolley 1911: Pl. 56: 10043), two at Mirgissa (Vercoutter 1976: Fig. 6: 7, 14), two at Semna (Dunham and Janssen 1960: Pl. 122: 33, 45), two at Ukma (Vila 1987: 228-30, Nos. 8/13, 55/54), and six at Kerma (Reisner 1923: Pls. 40-41 II: 75, 78, 83, 84, 85, 90). The design is attested also on four sealings from the site (Reisner 1923: Fig. 169: 81, 87, 98, 90). As in the case of design classes 9B and 9C, the number of parallels for design class 9D in the Palestinian series argues for the Canaanite origin of all variations attested in the Egyptian/Nubian series. Unlike in the case of design class 9C there is no indication for Egyptian imitations of design class 9D. For the occurrence of this distinct Egyptian motif on Canaanite scarabs, see below (§IVA 9c).

§IIA 9d. Design class 9E – lions

The number of examples displaying design class 9E in the Egyptian/Nubian series is smaller than those displaying design classes 9C and 9D. Nevertheless, like other subclasses of design class 9, the design is attested from the eastern Delta in the north to Kerma in the south and frequently displays a mixture with other subclasses of design class 9. Six examples were found at Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 7, 8, 10; Petrie 1906: Pl. 9: 134, 135, 152), three at Mostagedda (Brunton 1937: Pl. 69: 34, 35, 36), two at Nubt (Petrie and Quibell 1896: Pl. 81: 108, 109), two at Esna (Downes 1974: 64-65, Group 283: 3, Group 325: 1), two at Aniba (Steindorff 1937: Pl. 55: 75, 80), one at Semna (Dunham and Janssen 1960: Pl. 122: 18), one at Ukma (Vila 1987: 230, No. 55/54), and one at Kerma (Reisner 1923: Pls. 40-41 II: 74). The design is attested also on six sealings from the site (Reisner 1923, Fig. 168: 74-79). As in the case of the other subclasses of design class 9, the number of parallels attested in the Palestinian series argues for its Canaanite origin, and like design class 9D there is no indication for Egyptian imitations of design class 9E. The fact that not a single example bearing the design was found at Tell el-Dab`a and Tell el-Maskhuta is somewhat intriguing considering the distribution of Canaanite imports in eastern Delta sites. The six examples from Tell el-Yehudiyeh bearing the design suggest, however, that this absence most probably reflects accident of survival.

§IIA 9e. Design class 9F – Heraldic beasts

This design displays two types of sphinxes (human headed and falcon headed) and griffins (Tufnell 1984, Pl. 41; Keel 1995a: 198-201). Both types of sphinxes are attested in the Egyptian/Nubian series, but not a single example displays a griffin. Like design class 9E, design class 9F is represented in the Egyptian/Nubian series in a relatively small group in comparison with design classes 9C and 9D. Two examples were found at Tell el-Dab`a (Mlinar 2001, nos. 1035, 1070),⁴⁹⁰ two at Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 9; Petrie 1906: Pl. 7: 16),⁴⁹¹ one at Mostagedda (Brunton 1937: Pl. 69: 33),⁴⁹² three at Qau (Brunton 1930: Pl. 19: 37, 38, 39),⁴⁹³ one at Esna (Downes 1974: 61, Group 163: 5),⁴⁹⁴ one at Aniba (Steindorff 1937: Pl. 55: 74, 78),⁴⁹⁵ three at Buhen (Randall-MacIver and Woolley 1911: Pl. 56: 10044, Pl. 57: 10054, Pl. 89: 10846),⁴⁹⁶ and one example at Ukma (Vila 1987: 228, No. 16/14).⁴⁹⁷

It is interesting to note that unlike other subclasses of design class 9 design class 9F is distributed only between the eastern Delta and Lower Nubia, as not a single example is attested at Kerma, either in the cemetery or among

⁴⁸⁹ From MBIIB context.

⁴⁹⁰ From unclear contexts; both depicting a human-headed sphinx.

⁴⁹¹ Depicting respectively a falcon-headed sphinx and a human-headed sphinx.

⁴⁹² Depicting a falcon-headed sphinx.

⁴⁹³ Depicting a falcon-headed sphinx.

⁴⁹⁴ Depicting a falcon-headed sphinx.

⁴⁹⁵ The pictures in the publication are not clear enough to determine the type of sphinxes, which seem to have falcon heads.

⁴⁹⁶ Depicting, respectively two falcon-headed sphinxes and one human-headed sphinx.

⁴⁹⁷ Depicting a human-headed sphinx.

the sealings. As no chronological difference can be established between design class 9F and the other subclasses of design class 9 (below, §IVA 9) attested at Kerma, this situation most probably reflects accident of survival like the absence of design class 9E at Tell el-Dab`a and Tell el-Maskhuta.

The complete absence of griffins in the Egyptian/Nubian series supports the chronological difference suggested between Canaanite scarabs depicting sphinxes and those depicting griffins based on the early Canaanite characteristics of the latter (below, §IIIA 9). The almost complete absence of early Canaanite scarabs in the Nile valley is discussed below (introduction to chapter III).

A unique scarab from Kerma depicts an image suggestive of the heraldic lion attested on late Middle Kingdom scarabs and ivory wands (**Pl. 40: 30**). Yet, unlike Middle Kingdom representations of these demons, where they are usually depicted holding a knife, the figure on the Kerma scarab holds a uraeus. The latter is frequently depicted in the hand of human and mythical figures on Canaanite scarabs (Tufnell 1984: Pls. 42, 44). Nevertheless, as not a single parallel for this scarab is attested in Palestine it is difficult to establish its origin or to identify the image with certainty.⁴⁹⁸

§IIA 10. Design class 10 – Human and mythical figures

As in the case of design class 9, Canaanite imports bearing design class 10 are found in significant numbers in the Egyptian/Nubian series, while examples manufactured in Egypt are scarce. Also like design class 9, the late Middle Kingdom variations of design class 10 are extremely rare on Second Intermediate Period scarabs. The Canaanite imports display, as in the case of design class 9, Egyptian as well as Levantine affinity, and their distribution is identical to that of design class 9, from the eastern Delta in the north to Kerma in the south, the largest groups found in eastern Delta sites.

Tufnell divides design class 10 to four main subclasses based almost exclusively on the Palestinian series (Tufnell 1984: 134-38, Pls. 42-48):

10A. Standing

10B. Two or more figures, standing and/or kneeling

10C. Kneeling

10D. Goddess

These subclasses are further divided into categories based on the figures' heads (human or mythical), and the emblems held in their hands. As in the case of design class 9, Tufnell's subclasses of design class 10 frequently display a mixture with other subclasses of designs 9 and 10. Keel proposes some revisions for Tufnell's subclasses, based on his analysis of the figures, the scenes associated with them, and their religious and cultural implications (Keel 1995a: 204-29). These are discussed in association with the Palestinian series also with regard to design class 9 (below, §IVA 9). The discussion here refers to the Canaanite imports found in the Egyptian/Nubian excavated series, with an attempt to distinguish examples of Egyptian Second Intermediate Period origin among the excavated and unprovenanced published material.

§IIA 10a. Design class 10A – standing figure

This design displays a large variety of standing figures with human or mythical heads, frequently holding various attributes, and sometimes associated with subclasses of design class 9 (Tufnell 1984: Pls. 42-44). The Egyptian/Nubian series yielded a significant number of Canaanite imports displaying design class 10A, depicting both human and mythical figures, and distributed from the eastern Delta in the north to Kerma in the south.

Seven examples were found at Tell el-Dab`a, from strata D/3 and D/2 or unclear contexts (Mlinar 2001, nos. 701 – mythical head, 801 – mythical head, 911 – mythical head, 913 – mythical head, 1014 – human head, 1063 – mythical head; Mlinar 2002, No. 13 – mythical head). Four examples were found at Tell el-Maskhuta (**Appendix Pl. 1: 16, Appendix Pl. 2: 3, 9** – mythical head, **Appendix Pl. 1: 7** – human head), eleven at Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 5, 6 – human head; Petrie 1906: Pl. 7: 18 – mythical head, Pl. 8: 45 – human head, Pl. 9: 118, 161, 164 – human head, Pl. 9: 159, 160, 162, 163 – mythical head). One was found at Mayana (Petrie and Brunton 1924: Pl. 43: 9 – mythical head), one at Matmar (Brunton 1948: Pl. 43: 25 – mythical head), one at Mostagedda (Brunton 1937: Pl. 69: 32 – mythical head), five at Qau (Brunton 1930: Pl. 19: 40, 45, 46 – human head, Pl. 19: 41, 42 – mythical head), and five at Esna (Downes 1974: 60-64, Group 69: 1, Group 129: 2, Group 269: 15 – mythical head, Group 154: 2, Group 245: 5 – human head). Five examples were found at Buhen (Randall-MacIver and Woolley 1911: Pl. 56: 10018, Pl. 57: 10065, 10093 – human head, Pl. 56: 10043, Pl. 58:

⁴⁹⁸ A similar image on an unprovenanced scarab was identified by Petrie as the crocodile god Sobk (Petrie 1924: 28, Pl. 15: 1073). This identification is highly unlikely considering known Second Intermediate Period examples depicting the image of Sobk (Keel 1995a: 217, 226, Figs. 459-61, 510-13).

10152 – mythical head), one at Mirgissa (Vercoutter 1976: Fig. 6: 14 – mythical head),⁴⁹⁹ seven at Semna (Dunham and Janssen 1960: Pl. 121: 17, Pl. 122: 6, 14, 15, 45, Pl. 123: 4 – mythical head, Pl. 122: 46 – human head), one at Ukma (Vila 1987: 228, No. 18/3 – mythical head), and nine at Kerma (Reisner 1923: Pls. 40-41 II: 83, 84, 86, 87 – mythical head, Pls. 40-41 II: 80, 81, 85 – human head, Pl. 42 I: 9, 10 – mythical head).

Some of the subclasses of design class 10A in the Palestinian series are completely absent or extremely rare in the Egyptian/Nubian series, while others are found at most sites. Even a casual glance over the examples listed above reveals that the number of mythical-headed figures is larger than that of human-headed figures. Moreover, it is particular types of the latter that are completely absent or extremely rare in the Egyptian/Nubian series. These include the "toga wearer" (Tufnell 1984: Pl. 43; Keel 1995a: 207, Figs. 405-410, and below §IVA 10a), which is not attested even once in Egypt or Nubia, and the human figure standing next to pseudo-hieroglyphs (Keel 1995a: 206, Figs. 398-402), which occurs on two isolated examples from the eastern Delta (Mlinar 2001, no. 1014; Naville and Griffith 1890: Pl. 10: 6). This particular type, probably inspired by late Middle Kingdom private-name scarabs depicting the image of the owner (Keel 1995a: 206, Ben-Tor 1997: 181, and below §IIIA 10a), appears also on two scarabs from Tell el-Dab`a displaying features of the early local workshop at the site (**Pl. 30: 7, 16**). These two scarabs, which based on their contexts are dated to the final phase of the Middle Kingdom, support Keel's suggested prototype for this motif and indicate that the Canaanite imitation of this late Middle Kingdom prototype occurred first at Tell el-Dab`a in the final phase of the Middle Kingdom.⁵⁰⁰

The occurrence or absence of particular subclasses of design 10A in the Egyptian/ Nubian series may reflect accident of survival, but it also seems to have chronological significance, as later Canaanite types are more likely to occur in Egypt than earlier types (below, §IVA 10). As demonstrated elsewhere (Ben-Tor 1997: 181) human figures, although more common in the late Palestinian series occur already in the early series. Mythical-headed figures on the other hand come exclusively from the late series (below, §IVA 10). Preference of particular images should also be considered with regard to the popularity of particular subclasses.

As noted above, some Canaanite variations of design class 10A displaying human figures are attested already in the early local workshop at Tell el-Dab`a (**Pl. 30: 7, 16**). Yet, unlike the design discussed above, which was later imitated on Canaanite scarabs manufactured in Palestine, other productions of the early Tell el-Dab`a workshop display variations of design class 10A that are not attested in the Palestinian series. Moreover, they seem to have been produced exclusively in the early local workshop at Tell el-Dab`a in the final phase of the Middle Kingdom and early Second Intermediate Period. Three scarabs found at the site belong in this group; two of them displaying Mlinar's Type II features (**Pl. 30: 4, 8**), which date them to the late Middle Kingdom. The third scarab comes from an unclear context (Mlinar 2001: 1077 = **Pl. 41: 1**), and displays Mlinar's Type III features, which argue for a possible early Second Intermediate Period date. The scarab depicts a male figure in a striding posture, holding a mace in one hand and grabbing a gazelle in the other hand ready to strike it (Mlinar 2004: Fig. 8: 9). The scene on this scarab is similar to that occurring on one of the earlier examples (**Pl. 30: 4**), the latter depicting the horned animal in the late Middle Kingdom form (above) and a fish behind the human figure. A stylized fish appears also behind the figure on the later example.⁵⁰¹

A close parallel to the design occurring on this scarab appears on an unprovenanced scarab displaying Mlinar's Type III features (Giveon 1978b: Fig. 38a-c). The scarab depicts a male figure wearing the red crown holding a mace in his raised hand and grabbing a gazelle in the other hand ready to strike (**Pl. 41: 2**). The posture of the figures on this scarab and the Tell el-Dab`a scarab is almost identical: the spread legs, the grabbing of the gazelle, and even the unclear element depicted between the figures' spread legs, which seems to suggest more figures standing behind the main figure. Most important, both scarabs display features of Mlinar's type III of the early Tell el-Dab`a workshop, which confirm the origin of the unprovenanced scarab. The differences between the two scenes are manifested in the red crown on the unprovenanced scarab, which does not appear on the Tell el-Dab`a scarab, and in the position of the raised hand holding the mace. These features, however, appear on one of the scarabs depicting the image of the king harpooning a hippopotamus, which most probably dates from the late Middle Kingdom (**Pl. 20: 7**). Additional similarities between the last two scarabs include the particular shape of the red crown, the posture of the royal figures, and a clump of papyrus depicted as space filler on both scarabs, possibly representing the region of the Delta (Giveon 1978b: 82; Keel 1996: 125). The features of the hippopotamus-hunting scarab suggest a late Middle Kingdom date (above, §IA 10), while the features of the gazelle-hunting scarab date it between the final phase of the Middle Kingdom and the early Second Intermediate Period.

⁴⁹⁹ Displaying also design class 9D (above).

⁵⁰⁰ An additional example displaying this design with Tell el-Dab`a back type III was found at Kerma (Reisner 1923: Pls. 40-41 II: 80).

⁵⁰¹ It is interesting to note that two fish are also depicted flanking the human figure on the third early Tell el-Dab`a scarab noted above (**Pl. 30: 8**).

Keel discusses the iconography of the early Tell el-Dab`a group noted above, demonstrating its source of inspiration in Egyptian Middle Kingdom as well as western Asiatic glyptic art (Keel 1996: 125-26). The mixture of Egyptian and Levantine iconographic traditions is also attested on later Canaanite scarabs made in Palestine (below, §IVA 10). The group discussed above argues that this development began with the initial production of scarabs by the Canaanite population at Tell el-Dab`a in the final phase of the Middle Kingdom and the beginning of the Second Intermediate Period.

Apart from the early Tell el-Dab`a workshop, only isolated examples displaying design class 10A can be assigned an Egyptian origin. The date of the oval plaque from a Classic Kerma context at Kerma depicting a private person harpooning a hippopotamus (Reisner 1923, Pls. 40-41 II: 59 = **Pl. 20: 10**) is inconclusive. Possibly bearing the Horus name of Amenemhat IV on the reverse side, the plaque was given a Second Intermediate Period date by Markowitz, based on parallels that depict the harpooning of a hippopotamus (Markowitz 1997: 85). As shown above, however, this scene is attested mainly on late Middle Kingdom examples (above, §IA 10). Moreover, although most excavated oval plaques come from Middle Bronze Age Palestine and date from the Second Intermediate Period (Keel 1995a: 84, § 205), a most likely late Middle Kingdom example was found at Semna, depicting distinctive late Middle Kingdom designs on both sides (Dunham and Janssen 1960, Pl. 121: 2). The unprovenanced plaque bearing the prenomen of Amenemhat III on one side, and depicting Taweret and a horned animal on the other side (**Pl. 19: 11**, **Pl. 20: 29**), supports the initial occurrence of this type of design amulet in the late Middle Kingdom. These two examples argue for a most likely late Middle Kingdom date for the Kerma plaque (**Pl. 20: 10**).

Three of five unprovenanced scarabs depicting the harpooning of a hippopotamus (Keel 1993b: Figs. 1a-c, 4; 1996, Figs. 17a-c, 20, 37a-c, 38a-c) have been dated to the late Middle Kingdom (**Pl. 20: 7-9**). The publication of the fourth scarab presents only a drawing of the base design (Keel 1993b: Fig. 4),⁵⁰² and thus establishing its date more precisely within the period of the late Middle Kingdom and Second Intermediate Period is problematic. The fifth example displays the scene in an unusual manner (Keel 1996: Fig. 38a-c), which casts some doubt on the authenticity of the scarab. The Egyptian origin of all examples displaying the harpooning of the hippopotamus is suggested by the religious association of the motif, and by the fact that there is no evidence to suggest its imitation on Canaanite scarabs.

Another scene belonging in the Egyptian religious sphere for which there is no evidence of Canaanite imitations depicts the Egyptian king smiting an enemy. This particular scene, which customarily occurs on scarabs of the New Kingdom, appears on an unprovenanced Second Intermediate Period cowroid of the type associated with King Apophis (Keel 1996: 126-27, Fig. 27 a-c = **Pl. 41: 3**). The fact that this is the only known example depicting the scene on a pre-New Kingdom design amulet, argues for a late Second Intermediate Period date, which is further supported by the type of cowroid.

§IIA 10b. Design class 10B – two or more figures, standing and/or kneeling

The number of examples displaying design class 10B in the Egyptian/Nubian series is much smaller than that displaying design class 10A, and even eastern Delta sites have yielded only isolated examples. Two examples were found at Tell el-Dab`a (Mlinar 2001, nos. 1016 – mythical heads;⁵⁰³ Mlinar 2002: No. 14 – human heads),⁵⁰⁴ one at Tell el-Yehudiyeh (Petrie 1906: Pl. 7: 27 – human heads), one at Qau (Brunton 1930: Pl. 19: 67 – human heads),⁵⁰⁵ one at Debeira (Säve-Söderbergh 1989: Fig. 34: 170/37: 10D – human heads), one at Mirgissa (Vercoutter 1976: Fig. 8: 3 – mythical heads = **Pl. 40: 25**), one at Semna (Dunham and Janssen 1960: Pl. 121: 32 – mythical heads), and three at Kerma (Reisner 1923: Pls. 40-41 II: 88 – mythical and human heads, 89 – mythical heads, Pl. 42 I: 8 – mythical heads). The Levantine-inspired iconography of the scenes attested in this group was demonstrated by Keel (1995a: 218-221, 223-26), and is discussed in association with the Palestinian series (below, §IIIA 10c, §IVA 10c). There is no evidence to suggest an Egyptian origin for any of the known examples with the possible exception of the example from Mirgissa noted above (**Pl. 40: 25**); the small number of examples displaying the design in the Egyptian/Nubian excavated series supports this observation.

§IIA 10c. Design class 10C – kneeling figure

Like design class 10A, design class 10C displays a variety of figures with human or mythical heads frequently holding attributes, and sometimes associated with subclasses of design class 9 (Tufnell 1984: Pls. 46-47). The group displaying this design in the Egyptian/ Nubian series is larger than the one displaying design class 10B but

⁵⁰² The current location of the scarab is unknown.

⁵⁰³ From unclear context.

⁵⁰⁴ From stratum E/I.

⁵⁰⁵ The scarab back shows a human head instead of a scarab head.

smaller than the one displaying design class 10A. Whether the number of examples displaying design classes 10A-C in the Egyptian/Nubian series reflects accident of survival or preference of particular Canaanite designs in Second Intermediate Period Egypt is not entirely clear. Yet, the preference of Egyptianized mythical figures, the absence of the “toga wearer”, and the rare occurrence of scenes reflecting the cultural world of western Asia suggest that preference did play a role in the popularity of particular images.

Depicting both human-headed and mythical-headed figures, examples displaying design class 10C are distributed from the eastern Delta in the north to Kerma in the south. Three examples were found at Tell el-Dab`a (Mlinar 2001: no. 801 – mythical head,⁵⁰⁶ No. 1075 – human head;⁵⁰⁷ Mlinar 2002: No. 6 – human head),⁵⁰⁸ two at Tell el-Maskhuta (**Appendix Pl. 1: 14** – human head, **Appendix Pl. 1: 4** – mythical head), one at Tell el-Yehudiyeh (Petrie 1906: Pl. 7: 28 – mythical head), one at Mayana (Petrie and Brunton 1924: Pl. 43: 13 – mythical head), three at Esna (Downes 1974: 62-65, Group 223: 8 – human head, Group 242: 3 – mythical head, Group 320: 2 – mythical head), one at Aniba (Steindorff 1937: Pl. 55: 52 – mythical head), one at Debeira (Säve-Söderbergh and Troy 1991: Pl. 9: 64/4: 9 – mythical head), one at Buhen (Randall-MacIver and Woolley 1911: Pl. 89: 10797 – human head), two at Mirgissa (Vercoutter 1976: Fig. 6: 2, Fig. 7: e – mythical head), one at Semna (Dunham and Janssen 1960: Pl. 122: 33 – human head), and one at Kerma (Reisner 1923: Pl. 42 I: 7 – human head). As in the case of design class 10B there is no evidence to suggest an Egyptian origin for any of these examples, which, based on the parallels in the Palestinian series (below, §IVA 10c) constitute exclusively Canaanite imports.

§IIA 10d. Design class 10D – goddess

Tufnell divides this design into two subclasses based exclusively on the Palestinian series (Tufnell 1984: 138, Fig. 48):

10D1 – goddess standing, nude

10D2 – “Hathor” symbol

The Canaanite origin of both these subclasses was demonstrated by Schroer (1989), who presents conclusive evidence for the Levantine iconography and religious association of the nude goddess, and for the Canaanite origin of the Hathor symbol forms occurring on scarabs from Middle Bronze Age Palestine (below, §IVA 10d2). The latter provide one of the clearest examples for Canaanite adaptation of an Egyptian religious symbol and its assimilation into the Canaanite religious sphere. This is manifested in the combination of the human face with large ears (the Hathor symbol) and the nude goddess (Schroer 1989: 98-99: Nos. 19-34, 37). Both subclasses 10D1 and 10D2 occur in small numbers in the Egyptian/Nubian series; there is, however, a difference in their distribution; subclass 10D1 is attested only in the eastern Delta, while examples of 10D2 are found from the eastern Delta to Lower Nubia.

Design class 10D1 depicting the nude goddess is attested only on three examples in the Egyptian/Nubian series, all of them from the eastern Delta; one at Tell el-Dab`a (Mlinar No. 1073)⁵⁰⁹ and two at Tell el-Yehudiyeh (Petrie 1906: Pl. 9: 137, 138). The small number of examples bearing this design in the Egyptian/Nubian series, their distribution exclusively in the eastern Delta, and the number of parallels in the Palestinian series (below, §IVA 10d1) strongly argue for the Canaanite origin of these three scarabs. The complete absence of the design outside the eastern Delta provides further evidence for the preference of particular images; while Egyptianized mythical figures are the most popular, distinctive Canaanite figures like the toga wearer and the nude goddess are almost completely absent.

Design class 10D2 depicting the Canaanite variation of the Hathor symbol occurs on four examples at Tell el-Dab`a (Mlinar 2001, nos. 304 from stratum E/3, 603 from strata E/1-D/3, 802 from stratum D/3-2, and 1015 from unclear context), one at Tell el-Maskhuta (**Appendix Pl. 1: 12**), one at Tell el-Yehudiyeh (Naville and Griffith 1890: Pl. 10: 34), three at Qau (Brunton 1930: Pl. 19: 47, 48, 49), two at Esna (Downes 1974: 62-65, Group 223: 4, Group 325: 4), one at Dakka (Firth 1915: Pl. 41: 68), one at Semna (Dunham and Janssen 1960: Pl. 123: 7), and one at Ukma (Vila 1987: Pls. 5-6: 8/4b). The base of a unique human-headed scarab from Kerma with rows of flies on the back displays a typical late Middle Kingdom symmetric design with a sign slightly resembling the Canaanite Hathor symbol at the top (Reisner 1923: Pls. 40-41 II: 68). The form of the sign is unusual, however, and its interpretation as the Hathor symbol is uncertain. As this scarab was found in a Kerma Classic I context at Kerma, it most probably dates from the late Middle Kingdom as suggested by Markowitz (1997: 83-84) and supported by the

⁵⁰⁶ From unclear context.

⁵⁰⁷ From stratum D/3-2 – a rectangular plaque depicting the design on one side and design 10A on the other side (above).

⁵⁰⁸ From stratum D/3-2.

⁵⁰⁹ From unclear context.

e6/d14 side (above, §IB 4).⁵¹⁰ The ambiguous sign depicted on this scarab is more likely a floral motif rather than the Canaanite Hathor symbol.

The Canaanite origin of most examples listed above is indicated by parallels in the Palestinian series (below, §IVA 10d2).⁵¹¹ However, unlike in the case of design class 10D1, there is evidence to suggest that examples displaying the Canaanite Hathor symbol were also produced at Tell el-Dab`a. The clearest example, from stratum E/3 (Mlinar 2001, no. 304), displays features of Mlinar's Type III of the early local workshop (**Pl. 31: 11 = Pl. 40: 4**). Stratum E/3 at Tell el-Dab`a coincides with the early MBIIB in Palestine (Bietak 1997: 90), when large-scale Canaanite scarab production is first attested (below, introduction to chapter IV). The almost complete absence of this motif in the Palestinian series prior to Jericho group III (Tufnell 1984: 138) suggests that as in the case of the human figure standing next to a line of pseudo-hieroglyphs (above, design class 10A), the Canaanite variation of the Hathor symbol occurs first at Tell el-Dab`a. This early Tell el-Dab`a example exhibits a unique variation of the design, which slightly differs from all known parallels, in the form of the two leaf-like or feather-like headdress and in the choice of hieroglyphs flanking the symbol.

Another unusual example from Tell el-Dab`a displays the Hathor symbol flanked by an *ꜥnh* sign and a *nfr* sign enclosed in ovals (**Pl. 41: 5**).⁵¹² The scarab displays Mlinar's type IV features (Mlinar 2004: Fig. 11a: 10), which suggest a likely Palestinian origin (Mlinar 2004: 122-28). Yet, a possible Tell el-Dab`a origin for this scarab is indicated by the *ꜥnh* and *nfr* signs enclosed in ovals, which imitate a late Middle Kingdom design (**Pl. 10: 15, 18, 21, 23, 36-37, 44**) that is rarely attested together with the Hathor symbol on the Palestinian examples (below, §IVA 10d2). The cowroid from Qau (Brunton 1930: Pl. 19: 48) of the type associated with King Apophis may argue for an Egyptian origin. However, the form of the Hathor symbol on this object, which is identical to many of the Palestinian examples (Tufnell 1984: Pl. 48), suggests that this type of cowroid was also produced in Palestine.

Summary

Summing up the designs in the Egyptian/Nubian excavated series and on unprovenanced parallels, it can be concluded that most non-figurative designs (design classes 1-8) of the late Middle Kingdom continue into the Second Intermediate Period, but in notably smaller numbers. Most these designs are also attested on imported Canaanite scarabs, which are not always easy to distinguish from the Egyptian Second Intermediate Period scarabs. Egyptian imitations of Canaanite designs are attested in the case of design classes 3A4, 3C, and 3E. The relatively small number of examples displaying design classes 1-8 in the Egyptian/Nubian series (Egyptian productions and Canaanite imports) undoubtedly reflects the poor state of preservation of the cemeteries in which these series were found. However, it also seems to reflect, especially when compared with the late Middle Kingdom series, a noteworthy decline in the production of scarabs in Egypt during the Second Intermediate Period.

The relatively large number of Canaanite imports bearing design classes 9 and 10 in the Egyptian/Nubian series indicates that Canaanite figurative designs were particularly favored in Egypt during this period, while contemporary examples of Egyptian manufacture are scarce. Unlike in the case of design classes 3A4, 3C, and 3E, Egyptian imitations of Canaanite variations of design classes 9 and 10 are extremely rare. A small-scale production of late Middle Kingdom variations of design classes 9 and 10, which belong in the Egyptian religious sphere, is indicated only by isolated examples (**Pl. 40: 30, Pl. 41: 1-2**). The Canaanite imports displaying design classes 9 and 10 are distributed from the eastern Delta in the north to Kerma in the south, but their numbers in the eastern Delta usually exceed those in all other regions, supporting their Levantine origin. The evidence from Tell el-Dab`a argues that the earliest Canaanite designs occur on scarabs manufactured in the local workshop at the site during the final phase of the Middle Kingdom and the beginning of the Second Intermediate Period. The question of workshops of Second Intermediate Period scarabs, at Avaris and/or Thebes, will be discussed after the royal-name series (below, §IIB 4).

⁵¹⁰ A multiple scarab back similar to the multiple fly back of this scarab is attested on a late Middle Kingdom private-name scarab (Haynes and Markowitz 1991: no. 105 incorrectly dated to the Second Intermediate Period).

⁵¹¹ A human-headed scarab from Mayana depicts the Egyptian version of the Hathor symbol, which argues for the early 18th Dynasty date and Egyptian origin of this scarab (above, §IIa 4).

⁵¹² From strata E/1-D/3.

§IIB. Typology of Features

The feature most noted in association with Second Intermediate Period scarabs is the plain schematic back, which does not display the lines marking the scarab's body and wings (Martin 1971: 5, back type 10; Tufnell 1984: 34-35; O'Connor 1985: 8-11; Ward and Dever 1994: 130-31). Plain schematic backs are associated with royal-name, private-name and design scarabs of the period (Ward and Dever 1994: 129-31). The royal-name and private-name series display an overwhelming majority of plain backs though lined backs are occasionally attested (Martin 1971: 5, types 9, 10; Tufnell 1984: Pls. 56-63). A similar situation was noted with design scarabs (O'Connor 1985: 15-17; Ward and Dever 1994: 130-31), also at Tell el-Dab'a (Mlinar 2004: Figs. 1-14). Ward notes (Ward and Dever 1994: 130-31) that Second Intermediate Period scarabs are characterized by plain schematic backs, e11 and e11a sides, and D7, D8, and D9 heads (**Pl. 41: 7-10, 14-16**). The published corpus of Second Intermediate Period design scarabs displays also d5 side (**Pl. 41: 6, 11-13, 17, Pl. 42: 1-3**), plain naturalistic backs and e6/d14 sides (**Pl. 42: 4-8**), and a smaller number of lined backs (**Pl. 42: 9**).⁵¹³ As the publications of most Second Intermediate Period excavated series do not include the scarabs' features, the dominant features of Egyptian Second Intermediate Period design scarabs are presented here (**Pl. 41: 6-17, Pl. 42: 1-9**) with isolated examples from Tell el-Dab'a and a select group of imports from Tell el-'Ajjul in southern Palestine recently presented by Keel (1997).

A feature associated with Second Intermediate Period scarabs is the human face replacing the beetle's head on the scarab's back (Keel 1995a: 72-73, § 164-165). This feature, which occurs on the heart scarab of King Sobkemsaf, one of the Second Intermediate Period rulers at Thebes (Hall 1913: 22-23, no. 211), is also attested on two Second Intermediate Period royal-name scarabs (**Pl. 47: 15**)⁵¹⁴ and on design scarabs displaying distinctive Middle Bronze Canaanite designs (Keel 1995a: 73, §165). This unusual feature also occurs on a royal-name scarab bearing the prenomen of King Amenemhat IV of the 12th Dynasty (Tufnell 1984: Pl. 64: 3519); however, as argued by Keel (1995a: 72-73, § 164), this scarab is probably a posthumous product dating to the Second Intermediate Period, considering the branches decorating its back and its e10 side. Although mainly associated with Second Intermediate Period scarabs, and clearly adopted on Canaanite scarabs, this feature originated on late Middle Kingdom scarabs. This is indicated by three examples displaying designs and features that argue for a late Middle Kingdom date: 1. The scarab from Kerma noted above in association with design class 10D (Markowitz 1997: 83-84, Fig. 3.8). 2. A scarab from Tell el-'Ajjul displaying a typical late Middle Kingdom variation of design class 6B and e6/d14 side, both arguing for the scarab being a late Middle Kingdom Egyptian import (Keel 1997: 228-29, No. 372). 3. A scarab from the Israel museum collection displaying design class 6A2, and three lotus flowers on its back (**Pl. 29: 5**). Furthermore, human face replacing the beetle's head is attested on a 13th Dynasty heart scarab (Quirke 2003).

The type of cowroid associated with the name of King Apophis is also typical of the Second Intermediate Period, most probably of its late and final phase (**Pl. 42: 10-12**). Although isolated examples of possible Canaanite origin do occur (below, §IVB), most examples display characteristics suggesting an Egyptian origin.⁵¹⁵ A cowroid of similar type with a floral decoration on its back (Keel 1995a: 80, §194; **Pl. 42: 13-14**) is also most likely of Egyptian Second Intermediate Period origin, although most of the few excavated examples were found in Palestine. This is indicated by an example bearing the name of King Apophis (Tufnell 1984: Pl. 64: 3526), and by the base designs of the known examples: one from Kerma depicting design class 3B3 (above), one from Gezer depicting a unique combination of single line loops and red crowns (Macalister 1912: Pl. 206: 36), and two from Tell el-'Ajjul depicting Second Intermediate Period patterns of symmetric signs (**Pl. 42: 13-14**).⁵¹⁶

The mixed and reused deposits in which Second Intermediate Period scarabs have been found in Egypt and Nubia do not allow us to establish a stylistic sequence of the scarabs' features. Moreover, most publications of Second Intermediate Period scarabs present only the designs on the base. The only site in Egypt that yielded Second Intermediate Period scarabs in a stratified sequence is Tell el-Dab'a, in occupation levels ranging between strata E/3 and D/2 (between ca. 1680-1540 BCE). Mlinar's publication of these scarabs includes their features, which are classified according to the Tufnell and Ward typology (Mlinar 2001; 2004).⁵¹⁷ Mlinar distinguishes three main types

⁵¹³ See Ward and Dever 1994: 172-73; Mlinar in Bietak et al. 2001: 178, Fig. 7.

⁵¹⁴ See also Martin 1971, No. 1177 for King Khyas as *ḥkꜣ ḥꜣswt*. The scarab is not illustrated but see Martin 1971: Pl. 57: 11h for its back type.

⁵¹⁵ This is also the case for most examples found in Palestine; of the examples presented by Keel (1995a: 79, § 190) only one from Tell el-'Ajjul (Keel 1997: 165, no. 177) and one from Lachish (Tufnell 1958: Pl. 34: 194) are probably of Canaanite origin.

⁵¹⁶ Both examples display designs that are not attested on Canaanite scarabs. The Egyptian origin of the second example is indicated by the sign *r*, the type of *kꜣ*, and the symmetric depiction of falcons or vultures, a motif that is not attested on Canaanite scarabs. One such bird is also depicted on the first example.

⁵¹⁷ Scarabs from strata G-F at the site, whether made in the local workshop or elsewhere, date mainly from the late Middle Kingdom and their features are therefore irrelevant for the typology of Second Intermediate Period scarabs.

among the scarabs from Second Intermediate Period deposits at Tell el-Dab`a, based on their back, head and side types. She defines these as types IV, V, and VI, and further divides them into subtypes according to variations (Mlinar 2004: 122-34, Figs. 9-16). The only feature shared by all types is head D, though displaying various subtypes, which like the plain schematic back characterizes scarabs of the Second Intermediate Period (Tufnell 1984: 166; Ward and Dever 1994: 131).

Mlinar's types IV, V, and VI display a distinct majority of plain schematic backs and e9 and d5 sides (Mlinar 2004: Figs. 10-11, 13-14) but also a small number of examples displaying lined backs, naturalistic plain backs, and the common late Middle Kingdom side type e6/d14 (Mlinar 2004: Figs. 9, 12). It is important to note here that most items comprising the late Tell el-Dab`a Types (IV, V, VI) are Canaanite imports. Mlinar suggests that Type VI may represent a late Tell el-Dab`a workshop, yet she notes that most examples display Canaanite designs (2004: 134). The existence of a late Tell el-Dab`a workshop represented by Type VI scarabs is supported by the isolated royal-name and private-name scarabs found at the site, all of which display Type VI features (Mlinar 2004: Fig. 13a: 2, 4, Fig. 14: 2), and by two Type VI design scarabs displaying Egyptian Second Intermediate Period variations of symmetric signs (Mlinar 2004: Figs. 13a-13b: 7, 17 = **Pl. 42: 1, 3**). It is important to note that a significant number of Second Intermediate Period royal-name scarabs display Mlinar's Type VI features (below), which further support her association of this type with the late Tell el-Dab`a workshop. Nevertheless, most examples displaying Type VI features display also designs that strongly argue for a Canaanite origin, and the distinction between late Second Intermediate Period products of Palestine and Tell el-Dab`a is not always clear.

Although the late trend of Mlinar's Type VI is evident considering the stratigraphic distribution of most examples, the chronological distinction between IV, V and VI, is not always clear.⁵¹⁸ The significance of Mlinar's typology lies mainly in pointing out the distinction between the early period of Asiatic settlement at the site represented by types I-III and the later period represented by types IV-VI (Bietak et al. 2001). It does not provide, however, criteria to establish a sequence of features within the three later types. Moreover, as most late examples from the site display characteristics that argue for a Palestinian origin, the Tell el-Dab`a scarabs do not provide evidence for a sequence of Egyptian scarabs of the Second Intermediate Period.

§IIB 1. Royal-name scarabs of the foreign dynasty/dynasties at Avaris

The lack of archaeological evidence for establishing a typological sequence of Second Intermediate Period scarabs makes it extremely difficult to establish a sequence of royal-name scarabs of this period. Royal-name scarabs bearing foreign nomina and their close parallels bearing Egyptian prenomina are largely considered as representing the Hyksos period (Ward in Tufnell 1984: 162-70; Krauss 1998). These royal-name scarabs, and private-name scarabs bearing non-Egyptian names are associated with the foreign dynasty/ies ruling at Avaris (Ryholt 1997: 40-61), and they are most likely the products of the Tell el-Dab`a workshop. The royal-name scarabs of this group represent a number of names, which even when combined as nomina and prenomina of the same kings describe more than the six Hyksos kings in the Manethonian tradition and the Turin kinglist (Ward in Tufnell 1984: 162-72). The dynastic affiliation of these royal-name scarabs is therefore as controversial as their sequence (Ryholt 1997: 46-50; Schneider 1998: 123-46; Ben-Tor et al. 1999).

The significance of the royal-name scarabs under discussion for the historical reconstruction of the Second Intermediate Period is now generally accepted, as these scarabs constitute in most cases the only contemporaneous attestations of the kings whose names they bear. Recent attempts to establish their sequence have been made by Ward (in Tufnell 1984: 162-72), Ryholt (1997: 40-52), and Krauss (1998), who due to the scanty archaeological record of the period, based their arguments mainly on stylistic features and reached contradicting conclusions. Ryholt is the only one who also considered archaeological evidence: the early dates attributed by some scholars to the contexts of the Maaibre sealing from Uronarti and the Yaqubhar scarab from Shiqmona (Ryholt 1997: 42-43). Arguments against the absolute dates proposed by Ryholt for the Maaibre sealing from Uronarti and the Yaqubhar scarab from Shiqmona were presented elsewhere, based on recent analyses of their archaeological contexts (Ben-Tor et al. 1999: 55-58; Ben-Tor and Bonfil 2002; and see below). Further arguments can now be offered: 1. The probability of the Maaibre sealing from Uronarti being an 18th Dynasty intrusion (above §IIa 4) no longer requires placing this king early in the sequence of the Second Intermediate Period foreign rulers. 2. Recent studies of the archaeological evidence at Tell el-Dab`a place the beginning of the 15th Dynasty in stratum E/2 at the site (Bietak et al. 2001; Forstner-Müller 2003), having implications on the date and dynastic affiliation of King Yaqubhar (below).

Before examining the evidence available for establishing a sequence of these royal-name scarabs it is important to point out their Canaanite affinity, which allows us to associate them with the Palestinian series and thereby obtain further archaeological evidence. The Canaanite origin of the Second Intermediate Period foreign rulers in

⁵¹⁸ Mlinar's charts in Bietak et al. 2001: Fig. 6 and Mlinar 2004: Fig. 15 are misleading since an example displaying her type VI comes from stratum E1 (Mlinar 2001, no. 524).

Egypt was demonstrated by the archaeological evidence at Tell el-Dab`a, and is now generally accepted (Bietak 1997; Holladay 1997; McGovern and Harbottle 1997; Ryholt 1997: 94-150; Bourriau 2000: 187-95). Many scholars now argue that two dynasties of Canaanite origin, identified with Manetho's 14th and 15th Dynasties, ruled at Tell el-Dab`a during the Second Intermediate Period (Bietak 1997: 108-115; O'Connor 1997: 48-52; Ryholt 1997: 5-6; Bourriau 2000: 191-93). As noted above, royal-name scarabs of this period provide the primary and often exclusive evidence for most contemporary kings, especially those with non-Egyptian names (Ward 1976; Ryholt 1997: 40-52). Scholars generally agree that the foreign names on these scarabs are of West Semitic origin (Ward 1976; Redford 1997: 20-21; Ryholt 1997: 99-102, 126-30; Schneider 1998: 31-49).

An examination of these scarabs corroborates the Canaanite origin of the rulers, as their designs and stylistic features frequently show close similarity to contemporary Canaanite scarabs. Canaanite motifs such as the *ꜥmrꜥ* formula, the Canaanite Hathor symbol, and the twisted scroll commonly found on Syrian cylinder seals (e.g. Teissier 1996: 61, Nos. 61-62), occur on cylinder seals of King Khyan (Newberry 1906, Pl. 7: 7, 10). Some royal-name scarabs are decorated with branches on the back (e.g. Tufnell 1984: Pls. 56-59: 3220, 3230, 3272, 3339),⁵¹⁹ and particular variations of the so-called Hyksos sides (above, design class 3E1) first occur on early Canaanite scarabs (Tufnell 1984: 55, Fig. 16: 5, 18; below, §IIIA 3e1). The highly schematic features of many of these scarabs show close similarity to features of Middle Bronze Age Canaanite scarabs (Ward and Dever 1994: 129-131).⁵²⁰ The non-Egyptian origin of the artists who produced these scarabs is further revealed by corrupt variations of royal names and titles (Ward 1976: 360; Ben-Tor et al. 1999: 61-62). Such errors are unknown on royal-name scarabs of other periods, and strongly argue for the non-Egyptian origin of the artisans who manufactured them.

The number and distribution of these royal-name scarabs in Egypt and Nubia is notably larger than in Palestine, which argues for their manufacture in Egypt.⁵²¹ Moreover, there is no evidence for the production of royal-name scarabs in Palestine, except for Canaanite imitations that usually display meaningless groups of signs (e.g. Tufnell 1984: Pls. 17-18: 1771, 1798, 1804, 1814, 1818). There is also no evidence to suggest that Canaanite rulers in Palestine ever assumed Egyptian royal titulary, not even titles of high officials as in the case of rulers of Byblos in the late Middle Kingdom (Teissier 1996: 2 and n. 9). The evidence argues that these scarabs were made in the eastern Delta, most probably at Tell el-Dab`a, the capital of the foreign dynasties, by artisans of Canaanite origin. The fact that only two royal-name scarabs of this period were found at Tell el-Dab`a (Mlinar Nos. 711 from stratum D/3, and 1074 from unclear context)⁵²² is undoubtedly the result of the destruction and extensive plundering of the Second Intermediate Period remains from the site in later periods. Examples found in Palestine were most probably imported as part of the extensive trade between the eastern Delta rulers and Palestine during the Middle Bronze Age (Weinstein 1981: 8-10; 1991: 107-108).

The great majority of Second Intermediate Period royal-name scarabs did not originate in excavations, and most excavated examples come either from disturbed contexts or from late Second Intermediate Period – early 18th Dynasty contexts (Ryholt 1997: 105-106, ns. 355-358; Ben-Tor et al. 1999: 58-59). The only exception⁵²³ is the royal-name scarab of King Yaqubhar from Shiqmona in northern Israel, which was found with ceramic assemblages that have their closest parallels in pottery of group III at Jericho (Ben-Tor and Bonfil 2002: 38). Scarabs associated with group III at Jericho introduce according to Tufnell a new style that dominates the late Palestinian series (Tufnell 1984: 139-40; introduction to chapter IV, below). It is almost exclusively scarabs of the late series, of types first attested in group III at Jericho, that are also found in Egypt and Nubia unlike scarabs of the early series, which are almost completely absent in these regions, including the eastern Delta.

Canaanite pottery of the type associated with group III at Jericho is first attested at Tell el-Dab`a in stratum E/2 (Ward and Dever 1994: 80), the occupation level associated by the excavators with the rise of the 15th Dynasty (Bi-

⁵¹⁹ For the Canaanite origin of the branch motif see Keel 1995a: 190, 204, 210-13.

⁵²⁰ Ward's comparative material for royal-name scarabs constitutes primarily scarabs of the Palestinian series, the majority of which are of Canaanite origin (see Ward and Dever 1994: 131: Supplementary Group 1).

⁵²¹ This is clearly seen in Ryholt's list of attestations of the kings attributed to the 14th and 15th Dynasties (Ryholt 1997: 359-88), as the bulk of the unprovenanced scarabs originated in Egypt. See also Redford 1992: 119.

⁵²² The former bears a nomen not attested elsewhere which is usually read as *šmšk* (Ryholt 1997: 381, 14/c) though it may be a corrupt form of *ššr* (Mlinar in Hein (ed.) 1994: 145, no. 113). The latter bears the prenomen *ꜥ3-wsr-rꜥ* of King Apophis (Mlinar in Hein (ed.) 1994: 146, no. 115).

⁵²³ The early Second Intermediate Period date attributed to the archaeological context of the *m3ꜥ-ib-rꜥ* sealing from Uronarti (S. Allen in Ben-Tor et al. 1999: 55-58) is now challenged by 18th Dynasty intrusions (above, §IIa 4). Ryholt's claim that a scarab bearing the nomen of this king (*ššr*) from Mirgissa should be dated to the early 13th Dynasty is based on his assumption that the Mirgissa fort was abandoned during the reign of Neferhotep I (Ryholt 1997: 42, n. 111). Smith (1995a: 126-32), however, presents convincing evidence for the continued presence of Egyptians at Mirgissa, and this particular royal-name scarab was found in cemetery MX, which was used mostly in the Second Intermediate Period (Smith 1995a: 126; see also above, §IIb 4a2).

etak et al. 2001; Forstner-Müller 2003). The Yaqubhar scarab from Shiqmona thus provides a chronological link, as it can now be attributed, in all likelihood, to the early 15th Dynasty based on archaeological evidence. Supporting evidence for the 15th Dynasty affiliation of King Yaqubhar is provided by the close stylistic similarity between his scarabs and the scarabs of King Khyan (Ward in Tufnell 1984: 168, Fig. 29; Krauss 1998: 41, table 2b; Ben-Tor et al. 1999: 61). The generally accepted 15th Dynasty affiliation of Khyan (Bietak 1994: 27; Ryholt 1997: 118-37) suggests a similar dynastic affiliation for King Yaqubhar. The similarities between the scarabs of the two kings are found also in the writing of their prenomen, especially in the form of the sign *wsr* (Pl. 43: 3, 13).⁵²⁴ The latter misled both Giveon and Hornung who attributed two examples bearing the prenomen of Yaqubhar to Khyan (Hornung and Staehelin 1976: 219, no. 143; Giveon 1965; Keel 1995a: 234, no. 8). The striking similarities between the scarabs of these two kings argue for a chronological proximity, and against Ryholt's historical reconstruction assigning Yaqubhar to the 14th Dynasty and Khyan to the 15th Dynasty (Ryholt 1997:43-50).

As noted above, the number of names attested in the corpus of royal-name scarabs of this period exceeds that of the six kings ascribed to the Hyksos (Manetho's 15th Dynasty) in the Turin kinglist and the Manethonian tradition. The scanty archaeological and textual records available for the historical reconstruction of this period do not offer a conclusive explanation with regard to this issue (Ward in Tufnell 1984: 162-73; Kempinski 1992: 178; Redford 1992: 106-111; Bietak 1994: 22-25; Schneider 1994: 317-18; 1998: 57-75; Von Beckerath 1997: 136-39, 189; Ryholt 1997: 40-61; J. Allen in Ben-Tor et al. 1999: 51-52). The sequences suggested by Ward, Ryholt, and Krauss refer mainly to the better-attested names they consider as "the main group". According to Ward (in Tufnell 1984: 162-64) and Krauss (1998: 40), the latter includes seven nomina and eight prenomena and according to Ryholt (1997: 43-44) eight nomina and eight prenomena. Ward and Krauss do not discuss the dynastic affiliation of the kings for lack of evidence. Ryholt, on the other hand, attributes most kings attested on these scarabs to a pre-Hyksos Canaanite dynasty identified with Manetho's 14th Dynasty, which he considers as ruling the eastern Delta simultaneously with the 13th Dynasty at Memphis (Ryholt 1997: 46-50, 94-117).⁵²⁵

Ward divides the royal-name scarabs he ascribes to the main Hyksos sequence into four groups, and proposes identifications between the prenomena and nomina attested on these scarabs (in Tufnell 1984: 163-65). Krauss (1998) accepts Ward's division into four groups as well as his nomina and prenomena identifications, but suggests a reversed sequence, which is practically identical to the sequence proposed by Ryholt, though Ryholt suggests different identifications for some of the nomina and prenomena and different dynastic affiliations (1997: 42-50). The three scholars consider developments in the scarabs' designs and features, yet Ryholt and Krauss suggest a reversed order for the developments suggested by Ward.⁵²⁶

An examination of the scarabs under discussion supports a division into four groups as suggested by Ward and Krauss, with minor modifications. These four groups are presented below by a representative corpus (Pls. 43-47), following the sequence suggested by Ward, which is defended below.

Group 1. Seuserenre Khyan and Meruserre Yaqubhar (Pl. 43)

Group 2. Maaibre Sheshi (Pls. 44-45)

Group 3. Khauserre Amu, Sekhaenre Ykbum, Nubuserre Y`amu, Ahetepre (Pls. 46-47)

Group 4. Auserre Apophis (Pl. 47)

Group 1 consists of scarabs bearing the names of Seuserenre Khyan and Meruserre Yaqubhar, which display identical designs: design classes 3B (Pl. 43: 1, 9), 3E1 (Pl. 43: 2-4, 10-11), and 7B3 (Pl. 43: 5-6, 8, 12-13). The exception is design class 7C3, which is common on scarabs of Yaqubhar (Pl. 43: 14-17),⁵²⁷ but is not attested on scarabs of Khyan except for a unique example from Tell el-Yehudiyeh displaying the late Middle Kingdom variation of the design, depicting the scroll border as two confronted serpents (Pl. 43: 7). This particular form occurring on a small number of royal-name and private-name scarabs of the late Middle Kingdom (above, §IB 1), argues in favor of an early date for King Khyan. Unfortunately no photograph of the scarab, which is now lost, is available and verification of the design is not possible. Design class 7C2 is attested in group 1 only on a single example bearing the prenomen of Yaqubhar (Pl. 43: 18).

Scarabs of both kings display a distinct majority of plain naturalistic backs, sometimes decorated with branches (Pl. 43: 2, 7, 16-17), occasional A heads (Pl. 43: 1, 6, 14) and a majority of B (Pl. 43: 2, 4, 7, 18) and D heads (Pl. 43: 3, 5, 8-10, 15-17), and d6 sides (Pl. 43: 1-3, 5-6, 8-10, 14-17).⁵²⁸ The close stylistic similarity between the scar-

⁵²⁴ An identical form of the sign *wsr* – with legs, is also attested on scarabs bearing the prenomen *ʿ3-wsr-rʿ* of King Apophis of the 15th Dynasty (Kempinski 1985: 132; Ben-Tor and Bonfil 2002: 48).

⁵²⁵ For arguments against the chronology proposed by Ryholt see Ben-Tor et al 1999.

⁵²⁶ Ward also considers size. However, as already noted above, and as correctly noted by Ryholt (1997: 43) and Krauss (1998: 39), scarab size does not provide a reliable chronological indicator.

⁵²⁷ See Ben-Tor and Bonfil 2002: Fig. 4.

⁵²⁸ See Tufnell 1984: Pls. 56-57.

abs of Khyan and Yaqubhar was noted by Ward (in Tufnell 1984: 166-68) and Krauss (1998: 41), who place these kings in sequential order. Ryholt's assigning of these kings to different dynasties is based on evidence other than scarab style (Ryholt 1997: 46-50),⁵²⁹ and disregards the stylistic similarity of the scarabs presented in his own seriation chart (Ryholt 1997: 44, Table 11).

Group 2 consists of the large number of examples bearing the prenomen Maaibre and the nomen Sheshi. The largely accepted identification of these names as representing the same king is based primarily on the large number of examples bearing each name, which is unparalleled for any other royal-name scarabs of this period (Ryholt 1997: 366-76). The identification is also based on the close stylistic similarity of the scarabs bearing both names, in designs as well as features (**Pls. 44-45**). Ward, Ryholt, and Krauss place these scarabs in consecutive order with the scarabs of Yaqubhar, though in reversed sequence (Tufnell 1984: 163; Ryholt 1997: 50; Krauss 1998: 41), as the designs and features of the latter are also attested on the scarabs bearing the names Maaibre and Sheshi. These include design classes 3B (**Pl. 44: 1, 10**), 3E1 (**Pl. 44: 2-4, 11-12**), 7B3 (**Pl. 44: 13**), 7C2 (**Pl. 44: 7-9, 16-18**) and 7C3 (**Pl. 44: 5-6, 14-15**), A (**Pl. 44: 2-3, 9**) D and B heads (**Pl. 44: 1, 7-8, 11-18**), d6 sides (**Pl. 44: 2-3, 8-9, 11, 13-18**), and decorated backs (**Pl. 44: 9, 14**). Design class 7C2, which is not attested on scarabs of Khyan and occurs only once on a scarab of Yaqubhar, is the most common scroll border on scarabs of Maaibre and Sheshi (**Pl. 44: 7-9, 16-18**).⁵³⁰

The characteristics shared with the Yaqubhar scarabs occur, however, only on some of the Maaibre and Sheshi scarabs; the others display designs and features that are not found on the scarabs of group 1. These include design classes 3E2 (**Pl. 45: 1-4, 6, 9-12**), 3E3 (**Pl. 45: 5, 7**), and 3E4 (**Pl. 45: 8, 13-16**); side types d5 – the most commonly attested in this group (**Pl. 45: 1-4, 7, 9-12**), e11 (**Pl. 45: 8, 13-16**), and occasionally e9 (**Pl. 45: 6**). The dominating back type of these scarabs is plain schematic, in contrast to the plain naturalistic backs dominating the Khyan and Yaqubhar scarabs. It is important to note that most of the designs and features that are not attested on scarabs of group 1 are shared with the scarabs categorized under group 3 (below). The designs and features shared with group 1 on the one hand and with group 3 on the other argue for placing the scarabs of Maaibre Sheshi between these two groups, as Ward, Ryholt, and Krauss suggested, though in reversed order.⁵³¹

Group 3 consists of the largest number of royal names and includes the prenomen Khauserre, Sekhaenre, Nubuserre, and Ahetepre, and the nomina Amu, Ykbum, and Y'amu (**Pls. 46-47**).⁵³² Ryholt (1997: 43-46; 1998) adds scarabs bearing the nomen read by him as Qareh (**Pl. 47: 4-5**) to this group.⁵³³ The scarabs categorized under group 3 display almost exclusively plain schematic backs, and an overwhelming majority of D heads (**Pl. 46: 1-18, Pl. 47: 2-5**), d5 (**Pl. 46: 1-4, 6, 10, 13-15, 18, Pl. 47: 2**) and e11 sides (**Pl. 46: 7-9, 11-12, 17, Pl. 47: 1, 3-5**), and design class 3E (**Pl. 46: 1-8, 10-11, 13-18, Pl. 47: 1-3**).⁵³⁴ Design class 7 is extremely rare in this group, occurring only on a scarab of Amu displaying subclass 7C2 (Tufnell 1984: Pl. 60: 3363), and a scarab of Ahetepre displaying subclass 7B3 (Tufnell 1984: Pl. 61: 3433). The sequence proposed by Ward within this group, and his association of nomina and prenomena are based primarily on his suggested development of design class 3E: from 3E1 to 3E4 (in Tufnell 1984: 164-65).

Scarabs bearing the prenomen Khauserre (**Pl. 46: 1-3**), and those bearing the nomen Amu (**Pl. 46: 13-15**),⁵³⁵ display a close stylistic similarity, hence Ward's identification of them as representing the same king (in Tufnell 1984: 164). Both display an overwhelming majority of D heads and d5 sides (**Pl. 46: 1-3, 13-15**), and both display design classes 3E2 (**Pl. 46: 2, 13**), 3E3 (**Pl. 46: 3, 14**), and 3E4 (**Pl. 46: 1, 15**). Design class 3E2 is hardly ever found with other royal-name scarabs of group 3,⁵³⁶ supporting Ward's identification, and accounting for his categorizing the scarabs of Khauserre and Amu under group 2 after Maaibre-Sheshi (in Tufnell 1984: 163). These scarabs are categorized here under group 3 because their stylistic profile is almost identical to that of the other scarabs in this group, while showing similarity only to part of the Maaibre-Sheshi group.⁵³⁷

⁵²⁹ Ryholt's suggested reconstruction is based on Kempinski's suggested high date for the Yaqubhar scarab from Shiqmona, and on his own proposed late 15th Dynasty date for Khyan, which is based on the number and distribution of his monuments. See however Ben-Tor et al. 1999: 55; Ben-Tor and Bonfil 2002; and the discussion below.

⁵³⁰ See Tufnell 1984: Pls. 58-59: 3264-3276, 3323-3337.

⁵³¹ The scarabs of Maaibre Sheshi also display two designs that are not attested on other royal-name scarabs of this period: 1. Winged sun disks flanking the name (Firth 1927: Pl. 36: 230). 2. Border of concentric circles (Tufnell 1984: Pls. 57-59: 3263, 3321).

⁵³² According to the sequence suggested by Ward (in Tufnell 1984: Pls. 59-61).

⁵³³ Ward proposes to read the nomina on these scarabs as two different names: Qar and Shub (in Tufnell 1984: 170).

⁵³⁴ See Tufnell 1984: Pls. 59-61.

⁵³⁵ See Tufnell 1984: Pl. 60: 3349-3363.

⁵³⁶ Only one example bearing the nomen Ykbum (not illustrated) is noted by Ward (Tufnell 1984: Pl. 60: 3364).

⁵³⁷ See also Ryholt 1997: 43-44.

Ward identifies the nomen Ykbum with the prenomen Sekhaenre and the nomen Y`amu with the prenomen Nubuserre, but does not associate any of the existing nomina with the prenomen Ahetepre (in Tufnell 1984: 164-65). The scarabs bearing these five names demonstrate an almost identical stylistic profile; they display an overwhelming majority of design class 3E4 (Pl. 46: 4-8, 10-11, 18, Pl. 47: 1, 3), D heads (Pl. 46: 4-12, 16-18, Pl. 47: 2-5), and d5 (Pl. 46: 1-4, 6, 10, 18, Pl. 47: 2) and e11 sides (Pl. 46: 7-9, 11-12, 17, Pl. 47: 1, 3-5).⁵³⁸ Ward's identification of the nomina and prenomina and his proposed sequence are based on his suggested stylistic developments, which include the scarabs' size, designs, and features (Tufnell 1984: 163-68). Ryholt accepts Ward's identification of Ykbum with Sekhaenre and Y`amu with Nubuserre, but does not accept the identification of Amu with Khauserre, and proposes to identify the former with the prenomen Ahetepre, and the latter with the nomen read by him as Qareh (Ryholt 1997: 43-46; 1998). The occurrence of design class 3E2 in this group only on scarabs of Khauserre and Amu (above) argues in favor of the identification proposed by Ward. Nevertheless, as already argued elsewhere (Ben-Tor et al. 1999: 60-61) the designs and features of these royal-name scarabs are too similar to allow for any identification on stylistic grounds alone. Therefore, as no archaeological evidence is available to support the sequence or the identifications proposed by either Ward or Ryholt, they remain tentative until further evidence becomes available.

Krauss accepts Ward's nomina and prenomina identifications but like Ryholt (1997: 43-46) argues for a reversed sequence, placing Sekhaenre and Nubuserre early in the sequence and Yaqubhar and Khyan late, just before Apophis (Krauss 1998: 41-42). He accepts Ward's suggested development of design class 3E from 3E2 to 3E4, but places design class 3E1 last in the sequence, after 3E4, and not first in the sequence as suggested by Ward. His arguments are based on the assumption that crudely made scarabs are more likely to date early in the Hyksos period rather than later, based on the gradual Egyptianization of the Canaanite settlers in the eastern Delta attested in the archaeological record at Tell el-Dab`a (Krauss 1998: 40). Ryholt argues for the same development of design class 3E, placing the debased forms of 3E4 early and the actual signs of design class 3E1 late in the sequence (1997: 46, and n. 128). However, as already argued elsewhere (Ben-Tor et al. 1999: 61), the Canaanite origin of design class 3E is indicated by its complete absence on Middle Kingdom scarabs and its initial appearance on Canaanite scarabs of the early Palestinian series. The early Canaanite scarabs display exclusively design classes 3E1 (Ben-Tor et al. 1999: 61; below, §IIIA 3e1) and 3E5 (Ben-Tor 1997: 179-81; below, §IIIA 3e2), and they are now dated, based on evidence from Tell el-Dab`a, between ca. 1700 and 1640 BCE, that is, prior to the reign of the 15th Dynasty (Ben-Tor 2003; below, introduction to chapter III). It is interesting to note that design classes 3E2 and 3E3 are not attested on design scarabs (Tufnell 1984: Pl. 19), unlike design class 3E4, which occurs with design classes 3C and 6 (Tufnell 1984: Pl. 20). The latter, which are probably of Egyptian rather than Canaanite origin (above, design class 3E4), are not attested in Palestine earlier than Jericho group IV (Tufnell 1984: 123, Pl. 20: 1854), thus arguing for the sequence suggested by Ward and against the sequence suggested by Ryholt and Krauss. As for Krauss's argument that the gradual Egyptianization of the Canaanite population at Tell el-Dab`a should be reflected in a gradual improvement in scarab manufacture, the well executed products of the early workshop at the site, displaying Mlinar's types II and III (above), clearly argue against it.

Group 4 consists mainly of scarabs bearing the prenomen Auserre of King Apophis (Pl. 47: 6-15), as scarabs bearing his nomen are extremely rare (Ryholt 1997: 387).⁵³⁹ This group has a stylistic profile that differs from those of the other three groups; it displays a complete absence of design class 3E, and a particular design that is not attested on any of the other groups. The latter consists of the prenomen Auserre depicted on the right side of the base, frequently but not always enclosed in a cartouche, with a uraeus, S-spiral or 8-shaped sign to its left. A *nb* sign is usually depicted at the bottom and a *h^c* sign, *nbw* sign, lotus flower, or winged sun disk is at the top (Pl. 47: 6-11). As noted above (design class 3A4), the prenomen of the king is also attested on a distinctive type of cow-roid, enclosed in a cartouche and flanked by symmetric patterns of hieroglyphs or plants in longitudinal setting (Tufnell 1984: Pl. 64: 3523-3527).

Although displaying a different stylistic profile, scarabs bearing the prenomen of Apophis share particular designs and features with the other groups. With group 1 and 2 they share designs 3B (Pl. 47: 12-13) and 7B3 (Pl. 47: 14-15), head type A (Pl. 47: 12, 14), and side type e6 (Pl. 47: 10, 12, 14), and with group 3 they share side type d5 (Pl. 47: 8-9, 13) and a distinct majority of plain schematic backs. Head types B (Pl. 47: 9, 13) and D (Pl. 47: 6-8, 10-11) are shared with all groups. The designs and features shared with groups 1 and 2 made Krauss argue against Ward's sequence (1998: 41); however, the features shared with group 3 and the complete absence of side type d6,⁵⁴⁰

⁵³⁸ See Tufnell 1984: Pls. 60-61, 63.

⁵³⁹ Ryholt argues (1997: 64), based on the unusual ratio between scarabs bearing the nomen and prenomen of this king that examples bearing the legend *h^c3-wsr-r^c* should not be considered as royal-name scarabs of Apophis. See, however, Ben-Tor et al. 1999: 64-65.

⁵⁴⁰ The scarab presented in Tufnell 1984: Pl. 62: 3453 (Pl. 47: 12 here) displays side e6 and not d6 as noted by Ward.

which is typical of groups 1, argue that stylistic arguments are inconclusive in this case. The placement of Apophis late in the sequence of Hyksos kings is secure as it is based on written documents (Ryholt 1997: 118-25). A late Second Intermediate Period date for Apophis is supported by one of his royal-name scarabs showing *humeral callosity* on the back (Pl. 47: 15).⁵⁴¹ These v-shaped markings denoting the shoulders of the beetle are rarely attested prior to the New Kingdom when they become one of the dominant features (Tufnell 1984: 36, 106).

One of the main arguments presented by Krauss and Ryholt in favor of their suggested sequence and against Ward's seriation relies on their proposed consecutive order of Khyan and Apophis, which is based on the number and distribution of their monuments (Ryholt 1997: 43; Krauss 1998: 42). These monuments, though far exceeding in number and distribution the monuments of all other Second Intermediate Period kings, do not necessarily reflect more than the long reigns of Khyan and Apophis, and do not argue in any way for consecutive reigns of the two kings. In his discussion of the surviving monuments of the 15th Dynasty, Redford suggests that Khyan and Apophis, who account for almost all of the texts, may have ruled for a period covering 80 of the 108 years allotted by the Turin kinglist to the six Hyksos rulers (1997: 6). The majority of their monuments come from the eastern Delta, which is not surprising. Monuments found outside Egypt merely indicate contemporary or later trade contacts,⁵⁴² but like the Delta monuments they do not argue in any way for the consecutive order of these kings' reigns. Ryholt argues that two blocks from Gebelein, one bearing the name of Khyan and the other bearing the name of Apophis (Redford 1997: 6-7, nos. 27, 42), indicate Hyksos domination over Thebes during the reigns of these kings, and support their consecutive reigns (Ryholt 1997: 43, 135-36). The origin of these blocks is, however, far from clear and it has been suggested that they were transported to Gebelein at a later date as ballast in ships (Von Beckerath 1964: 148-49; Quirke 1991: 126).

The evidence presented above supports the consecutive order of groups 1 and 2, and 3, which was suggested by Ward, Ryholt, and Krauss, and argues in favor of the sequence suggested by Ward, which places group 1 early in the series and group 3 later, just before group 4. The main argument in favor of Ward's seriation is based on the archaeological contexts of Canaanite scarabs in the Palestinian series bearing design classes 3E1 and 3E4, which support Ward's suggested development of design class 3E. Further evidence in favor of Ward's seriation is provided by the archaeological context of the Yaqubhar scarab from Shiqmona, which argues for an early 15th Dynasty date, and the complete absence of any royal-name scarab of the groups discussed above in an earlier or even contemporary context. This absence argues against Ryholt's suggested date and dynastic affiliation of most scarabs categorized here under groups 1, 2, and 3, and against the sequence suggested by Ryholt and Krauss, which places the scarabs of group 3 earlier than those of groups 1 and 2.⁵⁴³ It should also be noted that the typical features of scarabs of group 3, such as the plain schematic backs, D type heads, and especially d5 sides, are dominant in Mlinar's type VI scarabs at Tell el-Dab'a, which come exclusively from strata D/3 and D/2, mainly from the latter (Mlinar 2004: Fig. 5), thus supporting the late Second Intermediate Period date argued by Ward.

The royal-name scarabs considered by Ward and Ryholt as the secondary group display names of less-well attested kings (Tufnell 1984: 169-72, Pls. 62-63; Ryholt 1997: 50-52). These scarabs share many designs and features with the main groups, which were used by both Ward (in Tufnell 1984: 169-70) and Ryholt (1997: 50-52) to establish their date and sequence. Ward proposes contemporary primary and vassal rulers, which he dates within the time span of the 15th Dynasty between ca. 1650 and 1540 (in Tufnell 1984: 157, 162-63). Ryholt, on the other hand, argues against the existence of vassal rulers in the Second Intermediate Period (1997: 323-24) and divides the entire series (main and secondary) between the 14th and 15th Dynasties, which he dates between ca. 1800 and 1550 BCE (1997: 6, 46-52). Unfortunately the existing evidence does not offer means to determine if these kings belonged to contemporary or consecutive dynasties, nor if they all ruled from the same residence. There is also no evidence to determine the difference between the foreign kings bearing the title *ḥkꜣ ḥꜣswt* and those bearing the customary Egyptian royal titulary (Ryholt 1997: 123-25). The evidence does argue, however, against dating any of the royal-name scarabs under discussion earlier than the reign of the 15th Dynasty, as not a single example was found in the early Palestinian series or in contemporary contexts in Egypt.

§IIB 1a. Scarabs of Nehsy

Ryholt includes in the secondary group also scarabs bearing names of kings' sons and treasurers (1997: 54-61), among which is a group of special interest bearing the title and name "King's Eldest Son Nehsy".⁵⁴⁴ The name Nehsy is also attested on a handful of Second Intermediate Period royal-name scarabs (Pl. 48: 9-11), and on monu-

⁵⁴¹ See also Ryholt 1997: 44-45, n. 119.

⁵⁴² See Redford 1992: 120-21, and n. 120.

⁵⁴³ See Ben-Tor et al. 1999: 58-62 for further arguments against Ryholt's suggested date and dynastic affiliation of these scarabs.

⁵⁴⁴ Tufnell 1984: Pl. 62: 3471-3477.

ments from the eastern Delta describing both a king and a king's eldest son (Ryholt 1997: 376-78). Most important, the name Nehsy is recorded in the Turin kinglist, where its position made scholars consider it as representing one of the early rulers of the 14th Dynasty (Bietak 1984b; Ryholt 1997: 94-97).⁵⁴⁵ The special interest in the scarabs of Nehsy, whether describing a king or a king's eldest son, resulted from their identification with the king recorded in the Turin kinglist. If this identification is accepted it provides a significant chronological fixed point for scarab style of the Second Intermediate Period.

Most scarabs bearing the name Nehsy describe him as "King's Eldest Son" (PI. 48: 2, 4-8),⁵⁴⁶ one example bears the title "King's Son" (Martin 1971, No. 783), and three examples bear the signs *s3*, *nsu*, *r*^c (PI. 48: 1, 3)⁵⁴⁷ most probably reflecting the engraver's confusion between the royal title "Son of Re" and the title "King's Son".⁵⁴⁸ The great majority of these scarabs display the name and title without any associated designs, except for one example displaying design class 3E4 (PI. 48: 8). The dominant features of these scarabs (Plain schematic backs, D heads, d5 and e11 sides), and the example bearing design class 3E4, associate them with the royal-name scarabs of group 3 thereby arguing for a late Second Intermediate Period date and against their identification with the king recorded in the Turin kinglist. The identification between the king's eldest son on the scarabs and King Nehsy of the Turin kinglist, although largely accepted (Bietak 1984b; Ward in Tufnell 1984: 170; Ryholt 1997: 376-78) is based mainly on the eastern Delta monuments recording both King Nehsy and King's Eldest Son Nehsy (Redford 1997: 4). These monuments, however, come exclusively from secondary contexts and their identification as representing the same historical figure as Nehsy of the Turin kinglist, although possible, is speculative, and there is no evidence to support it.

Ryholt's suggested seriation, which dates the royal-name scarabs of group 3 to the 14th Dynasty, does not encounter any problem identifying the king's son attested on the scarabs with Nehsy of the Turin kinglist (Ryholt 1997: 54-59, 94-97). Ward's suggested seriation, however, which dates the scarabs of group 3 much later in the Hyksos Period, encounters a problem when trying to attribute these scarabs to King Nehsy of the Turin kinglist (in Tufnell 1984: 170-72). Ward's proposed solution to the problem, suggesting an incorrect sequence of kings in columns VIII to X of the Turin kinglist (in Tufnell 1984: 156, 172) is possible, but it is also possible that the scarabs of "King's (Eldest) Son Nehsy" do not refer to King Nehsy of the Turin kinglist.

It is interesting to note that the isolated scarabs bearing the name Nehsy with the royal title *s3 r*^c display characteristics that differ from those describing Nehsy as King's Eldest Son. The royal-name scarabs bearing the name Nehsy display design class 7C3 (PI. 48: 9-11), which is most common on scarabs of King Yaquhar but is not attested on scarabs of group 3. The identification of King Nehsy with King's Eldest Son Nehsy cannot be proved, and the date of his reign is uncertain. Based on his position in the Turin kinglist, Bietak attributes two blocks from Tell el-Dab'a bearing his name to a Canaanite-type temple in stratum F at the site (1984b: 62-65; 1997: 108-109). Nevertheless, like all other monuments bearing the name Nehsy, these blocks come from secondary contexts and Bietak acknowledges the fact that their attribution to stratum F, though possible, can not be conclusively demonstrated (1997: 108; See also Weinstein 1992: 30-31).

A recently discovered limestone stele from a cachet within the foundation structure of the fort in the city of Tharo in northern Sinai supports a late Second Intermediate Period date for prince Nehsy. The relief on this stele shows a male figure identified as "King's Son Nehsy" in front of a ram-headed figure identified as the eastern Delta god Banebdjedet. The name and title of the "king's sister Tani" are inscribed between the two figures. A king's sister by that name is attested also on some monuments from the time of King Apophis (Ryholt 1997: 256-59), implying a possible identification between the two women, and thus a late Second Intermediate Period date for prince Nehsy.⁵⁴⁹

§IIB 2. Royal-name scarabs of Second Intermediate Period Theban kings

The royal-name scarabs discussed above are attributed exclusively to the Second Intermediate Period foreign rulers in the eastern Delta. The historical reconstruction of the period in southern Egypt is even more problematic and controversial than that of the north, especially with regard to the number and identity of the ruling dynasties and the kings associated with them (O'Connor 1997; Ryholt 1997: 151-83; J. Allen in Ben-Tor et al. 1999: 52 -53, 66-67;

⁵⁴⁵ See, however, Redford 1992: 107, n. 46, 114, n. 89.

⁵⁴⁶ See Martin 1971, Nos. 784-795a; Ryholt 1997: 376-77.

⁵⁴⁷ See Ryholt 1997: 59.

⁵⁴⁸ See Ward 1976: 363, n. 75; Ward in Tufnell 1984: 170; Ben-Tor et al 1999: 62. Ryholt's interpretation of this problematic writing as a title for the heir to the throne or coregent (Ryholt 1997: 59) is highly unlikely and cannot be corroborated by other monuments.

⁵⁴⁹ The stele was published on the Internet at: <http://weekly.aharam.org.eg/2005/755/he1.htm>. I am very grateful to Wolfram Grajetzki for drawing my attention to it.

Bourriau 2000: 203-206). Royal-name scarabs that can be attributed to Second Intermediate Period rulers at Thebes⁵⁵⁰ – the capital of southern Egypt during this period – are extremely rare, and their dynastic affiliation is usually inconclusive.

The only exception is a scarab of the last king of the 17th Dynasty, Kamose, found at Thebes (**Pl. 49: 1**).⁵⁵¹ The scarab, which is set in a gold mount, displays the prenomen of the king enclosed in a cartouche surmounted by two feathers and flanked by the title *ntr nfr* and the epithet *di nhl* arranged vertically in symmetric opposition. This particular design is not known on any of the royal-name scarabs discussed above, and there is no evidence to establish its source of inspiration. The scarab displays side d5, the dominant side type of royal-name scarabs of group 3. Nevertheless, as this is the only known royal-name scarab of Kamose no conclusions can be drawn on the basis of its design or features.

Apart from the Kamose scarab, only a small number of Second Intermediate Period royal-name scarabs can be attributed to Theban rulers, most of them bearing the prenomen *sw3d-n-r^c* of King Nebiryraw I (Ryholt 1997: 389, File 16/6). Eight of the eighteen published examples come from the excavated series (Ryholt 1997: 389, File 16/6: Nos. 1, 3, 5-7; Wegner 1998, Fig. 20: 6). None of the latter, however, comes from a clear context that allows determining the date of this king's reign or his dynastic affiliation, which is still controversial (Ryholt 1997: 158, 202; Wegner 1998: 37; J. Allen in Ben-Tor et al. 1999: 67; Bourriau 2000: 198). Unlike the bulk of Second Intermediate Period scarabs and almost all royal-name scarabs discussed above, the scarabs of *sw3d-n-r^c* are usually made of glazed composition.⁵⁵² The material and the workmanship of these scarabs are of poor quality. Ryholt attributes King Nebiryraw I to the 16th Dynasty (1997: 158) and argues that the use of glazed composition for his scarabs reflects inability to obtain steatite from the eastern desert during his reign (1997: 159-60).⁵⁵³ This suggestion is challenged by an example made of glazed steatite in the Israel Museum collection (**Pl. 49: 2**), which argues for the likely existence of other, yet unpublished, examples.

As noted above (§IIB 1a), the debris in the north pyramid cemetery at el-Lisht yielded two scarabs of *sw3d-n-r^c* made of glazed composition (**Pl. 49: 3-4**),⁵⁵⁴ and two examples bearing the prenomen *shtp-ib-r^c* displaying identical material, features and poor workmanship (**Pl. 49: 5-6**). No Second Intermediate Period king with the latter prenomen is attested, and it is therefore unclear if these scarabs bear the name of a so-far unknown contemporary king or commemorate the name of the founder of the 12th Dynasty, Amenemhat I.⁵⁵⁵

Another Second Intermediate Period Theban ruler who is attested on scarabs is King Monthemsaf whose prenomen *dd-^cnhl-r^c* occurs on two published scarabs (**Pl. 49: 7-8**)⁵⁵⁶ and one unpublished scarab in the Israel Museum collection (**Pl. 49: 9**). Ryholt attributes this king to the 16th Dynasty and dates him to the late Second Intermediate Period based on an axe blade inscribed with his prenomen, which is typical of this period (1997: 157, 391, File 16/c, No. 2). The two published scarabs bearing the king's prenomen display features that are almost identical to those of the 13th Dynasty Sobkhotep group (above §IB 2).⁵⁵⁷ This king was traditionally attributed, together with two other kings bearing prenomena consisting of the formula *dd-X-r^c* to the late 13th Dynasty (Ward in Tufnell 1984: 160; J. Allen in Ben-Tor et al. 1999: 68, n. 17). The features of the two published scarabs made Ward place them in the late 13th Dynasty after the Sobkhotep group (in Tufnell 1984: 160). However, Ryholt's dating of this king to the late Second Intermediate Period is supported by the Israel Museum example, which displays V-shaped *humeral callosity* on the scarab's back (**Pl. 49: 9**).⁵⁵⁸

Ward attributes two additional groups to the corpus of Second Intermediate Period royal-name scarabs (in Tufnell 1984: Pl. 63: 3499-3513). The first, inscribed with the legend *nwb-hpr-r^c*, was often considered as bearing the

⁵⁵⁰ The existence of a dynasty of local rulers at Abydos (Ryholt 1997: 163-66) is not supported by the evidence (see J. Allen in Ben-Tor et al. 1999: 49).

⁵⁵¹ See Petrie 1917: Pl. 23: 17.0.1; Ryholt 1997: 398, File 17/9, No. 4.

⁵⁵² Scarabs dating from the first half of the second millennium were usually made of glazed steatite (Tufnell 1984: 42; Keel 1995a: 147-48), the glaze usually worn off in the case of scarabs found outside the Nile valley and in the Delta as a result of exposure to humidity.

⁵⁵³ Ryholt attributes one of these scarabs to King Monthotepi, who is listed just before Nebiryraw I in the Turin kinglist, and whose prenomen is *s^cnhl-n-r^c* (Ryholt 1997: 389, File 16/5, No. 3). This attribution is, however, far from certain as no photograph of this scarab is available, and Ryholt himself notes that the prenomen was also read as *sw3d-n-r^c* (Ryholt 1997: 389, File 16/5, n. 2). Considering the fact that all other examples bear the prenomen of Nebiryraw I, this is also most likely the case with the scarab attributed by Ryholt to Monthotepi.

⁵⁵⁴ See Ryholt 1997: 389, File 16/6, No. 1.

⁵⁵⁵ See Hayes 1953: 176. It is important to note that no contemporaneous royal-name scarabs of Amenemhat I are known (above, §IB 1).

⁵⁵⁶ See Ryholt 1997: 391, File 16/c, No. 3.

⁵⁵⁷ Both scarabs display C heads: one of them (Tufnell 1984: Pl. 56: 3202) displays Martin's back type 6 (above, §IB 2-3), and the other (No. 3203) has e6/d14 side (above, §IB 5).

⁵⁵⁸ The scarabs of this king provide a good example for the inconclusive nature of stylistic features.

phenomen of Antef VII of the 17th Dynasty (Ward in Tufnell 1984: 178; Ryholt 1997: 65, n. 199). The second, inscribed with the legend read as *dsr-hpr-r^c* or *^c3-hpr-r^c*, was considered by Ward as bearing the phenomen of an unknown Second Intermediate Period ruler (in Tufnell 1984: 176-78). The interpretation of these two groups as royal-name scarabs was contested by Ryholt, who presents very convincing arguments for reading them as formulae associated with the cult of Re (1997: 65; See also Ben-Tor et al. 1999: 64).

§IIB 3. Private-name scarabs of the Second Intermediate Period

In contrast to the large number of officials attested on private-name scarabs of the late Middle Kingdom (above, §IB 3), only a handful of private individuals are attested on Second Intermediate Period scarabs. The latter are identified by distinctive designs and features, which are completely absent in the late Middle Kingdom corpus, but occur in the Second Intermediate Period royal-name series. These include design classes 7C2 (Martin 1971: Pl. 5: 6-12), 7C3 (Martin 1971: Pl. 11: 5, 8, 10-11, 13, 21, Pl. 12: 2, Pl. 42: 3), and 3E1-3E4 (Martin 1971: Pl. 41: 1-23, 26-27, Pl. 42: 13, Pl. 42A: 24, 27), and winged sun disks flanking the name and title (Martin 1971: Pl. 41: 24-25). The dominating back is plain schematic (Martin's type 10b), and less frequently plain naturalistic (Martin's type 5d) and the most common sides are, as in the royal-name series, d6, d5, e9, and e11.⁵⁵⁹ The officials attested on these scarabs constitute mainly kings' sons, kings' eldest sons (including the combination *s3 nsiw r^c*), and treasurers (Ryholt 1997: 54-61). Other titles are attested only on isolated examples (Martin 1971: Pl. 5: 8, Pl. 11: 10, 11, 21, Pl. 41: 1, 4, 6, 16, 24).⁵⁶⁰ It is important to note that the non-Egyptian names attested on the bulk of these scarabs, the combination *s3 nsiw r^c*, and the designs and features they share with royal-name scarabs, associate them exclusively with the eastern Delta foreign dynasties.⁵⁶¹

The scarabs bearing the titles of king's son or king's eldest son, and the combination *s3 nsiw r^c* display close stylistic similarity to the royal-name scarabs of groups 1, 2, and 3, which made Ryholt assign them almost exclusively⁵⁶² to the 14th Dynasty (1997: 54-61, 287-88). Ryholt attempted to establish a filial relationship between these princes and the kings attested on the royal-name scarabs of the main groups, based on stylistic details of the scarabs. These stylistic details are, however, inconclusive and highly problematic as can be seen for example in Ryholt's distinction between scarabs of prince Ipeq and those of prince Qupepen, which he considers as typologically different, and thus associates them with different kings (1997: 58). An examination of the scarabs of these princes in Martin's corpus shows, however, many shared designs and features, such as Martin's design 3a, his back types 10b and 5d, and his side type 4j (Martin 1971, Nos. 127-168a, 1680-1685 *passim*). Moreover, the scarabs of prince Qupepen include an example displaying winged sun disks flanking the name and title (Martin 1971: Pl. 41: 25), a design attested in the royal-name series only on one example bearing the phenomen Maaibre (Firth 1927: Pl. 36: 230). Ryholt, however associates King Maaibre Sheshi with prince Ipeq, and considers Qupepen as son of Yaquhar based on the use of side d6 (1997: 58), a side type that is also attested on a scarab of prince Ipeq (Hornung and Staehelin 1976: Pl. 12: 136).

Like the scarabs bearing names and titles of princes, those bearing names and titles of treasurers display characteristics that allow associating them with the royal-name scarabs of the main groups 1, 2, and 3, and are assigned by Ryholt exclusively to the 14th Dynasty (1997: 59-61). Ryholt's attempt to associate these scarabs with the royal-name series relies, as in the case of the scarabs of princes, on inconclusive stylistic details and is just as problematic. Moreover, his suggested development in the use of dignitary titles in addition to the functional title "treasurer" (1997: 60-61) is based on a suggested inspiration from officials of the 13th Dynasty, which he considers as contemporaneous with the 14th Dynasty. As argued elsewhere (Ben-Tor et al. 1999), Ryholt's suggested chronology for the

⁵⁵⁹ See e.g. the scarabs of the treasurers Har (Martin 1971: Nos. 984-1088) and Peremwahet (Martin 1971, Nos. 477-507) recently read as Peremhesut (Quirke 2004: 180-81), and the princes Qupepen (Martin 1971: Nos. 1680-1685) and Ipeq (Martin 1971: Nos. 127-168a).

⁵⁶⁰ The scarab of the deputy treasurer 'Amu from Tell el-Dab'a is attributed by Ryholt to the 14th Dynasty based on its context, and is discussed among other 14th Dynasty scarabs (Ryholt 1997: 61, 104-105). However, this scarab displays features that strongly argue for a late Middle Kingdom date (the C head and e6 side). The scarab was found in a tomb in stratum F (Mlinar 2001, no. 205), the occupation level associated by the excavators with the transition from the Middle Kingdom to the Second Intermediate Period at the site (above, §IIB 5c). If the scarab was found in the tomb of its original owner, which is possible though uncertain, the deputy treasurer 'Amu may have served one of the last 13th Dynasty kings in the el-Lisht-Memphis residence or a local ruler at Avaris in the early Second Intermediate Period. Whatever the case, this scarab is a product of the late Middle Kingdom residence; it is earlier than the Second Intermediate Period scarabs of treasurers attributed by Ryholt to the 14th Dynasty, and differs from them stylistically.

⁵⁶¹ For a discussion of these officials and the administrative implications of the scarabs see Quirke 2004.

⁵⁶² The only exception is an unpublished scarab from Berlin bearing the title "king's son" and the name Apophis, which Ryholt (1997: 57) attributes to the late 15th Dynasty based on the v-shaped markings on the wings (humeral callosity, for which see a scarab of King Apophis above).

reign of the 14th Dynasty is contradicted by archaeological evidence and is largely unaccepted (Ben-Tor et al. 1999; Bourriau 2000; Bietak et al. 2001). The close stylistic similarity between most of these private-name scarabs and scarabs of groups 2 and 3 in the royal-name series strongly argues for dating the former well within the Hyksos Period. Unfortunately, Tell el-Dab`a yielded only one royal-name scarab and one private-name scarab in stratified contexts, both of them from the final phases of the Second Intermediate Period: the former in stratum D/3 (Mlinar 2001, no. 711) and the latter in stratum D/2 (Mlinar 2001, no. 909).

§IIB 4. Second Intermediate Period Workshops

The noticeable Canaanite affinity attested in the design and name scarabs discussed above argues that the bulk of Second Intermediate Period scarabs manufactured in Egypt originated in the eastern Delta. The Canaanite inspiration on many designs and features of these scarabs argues for their production in the Canaanite-populated region in the eastern Delta, most probably at Tell el-Dab`a where the existence of a workshop was demonstrated by Mlinar (in Bietak et al. 2001; 2004). Small-scale Theban production of scarabs in the Second Intermediate Period is suggested by the few royal-name scarabs discussed above. Yet, not a single private-name scarab or design scarab can be securely attributed to this workshop (Quirke 2004).

Another indication that scarabs were not produced on a large scale in Thebes during the Second Intermediate Period is provided by the stylistic profile of early 18th Dynasty scarabs. These scarabs display striking stylistic similarity to scarabs of the early Middle Kingdom,⁵⁶³ arguing for the likely Theban production of both groups and suggesting a gap in the local production of scarabs during the late Middle Kingdom and the Second Intermediate Period.⁵⁶⁴ Further evidence for the lack of a long local tradition of scarab production at Thebes is indicated by the adaptation of Canaanite motifs, such as the antelope and branch (Jaeger 1982: 171, design No. 10) and the *ꜥnrꜥ* formula (Jaeger 1982: 295, Ills. 680-683) on 18th Dynasty scarabs. The fact that two of the three Theban kings attested on Second Intermediate Period scarabs, Kamose and Monthehsaf, date from the late phase of the period may suggest that Theban scarab production was resumed in the late Second Intermediate Period. The absolute date of King Nebiryraw I is uncertain and the date of production of his scarabs, which are most likely contemporaneous products of the Theban workshop, can not be determined.

⁵⁶³ The similarity between the two groups caused some confusion in the case of two early Middle Kingdom scarabs from Crete erroneously dated to the early 18th Dynasty (Keel and Kyriakidis 2000: Nos. 301, 325). This issue is beyond the scope of this study and will be discussed elsewhere.

⁵⁶⁴ For the production of the late Middle Kingdom scarabs at *ḥtj-t3wy* see introduction to chapter I.

Introduction to chapters III-IV

Typology of Scarabs from Middle Bronze Age Contexts in Palestine

Unlike the Egyptian late Middle Kingdom and Second Intermediate Period series discussed above, the Middle Bronze Age Palestinian series were defined both archaeologically and stylistically by Tufnell, Ward, and Dever (Tufnell 1973; 1980; 1984; Ward 1987; Ward and Dever 1994). Moreover, comprehensive studies by Schroer (1985; 1989) and Keel (1989; 1994: 207-225; 1995a; 1997) deal with the iconography of designs occurring on these scarabs. Although hardly considering archaeological and chronological issues, the studies of Schroer and Keel were the first to present solid evidence for the Canaanite origin of Middle Bronze Age scarabs bearing particular motifs and designs (See Ward 1992b: 737-39; Ben-Tor 1997: 181-85).

As already noted in the introduction to typologies, the methodological significance of the Tufnell and Ward typology lies first and foremost in their use of excavated series, which proved to be a major breakthrough in scarab typological studies (Ben-Tor 2003). Nevertheless, the conclusions presented in the studies of these two authors have generally been rejected (Kemp and Merrillees 1980: 44-50; Bietak 1984a: 482-85; 1991: 54-57; 1997: 125-28; O'Connor 1985: 40-41; Weinstein 1992; 1996; Beck and Zevulun 1996; Smith 1995a: 76, 85-86; Ben-Tor 2004a; Bagh 2000: 26-27). As argued elsewhere (Ben-Tor 1997: 166; 2003: 239) two main methodological flaws account for the problematic conclusions of the Tufnell and Ward typology: 1. The absolute dates they propose for the scarabs' archaeological contexts, which are based on a high chronology for the Middle Bronze Age phases, disregard crucial evidence from Tell el-Dab'a. 2. Their treatment of scarabs found in Egypt and those found in Palestine as one and the same group, unaware of the Canaanite production of most scarabs from Middle Bronze Age Palestine.

The high chronology for the Middle Bronze Age phases in the southern Levant was proposed long before the evidence from Tell el-Dab'a became available, and thus the early work of Tufnell and Ward was based on a largely accepted consensus (Ward and Dever 1994: 48). This was not the case in 1994, however, when Ward and Dever defended the high chronology and challenged the Tell el-Dab'a evidence (Ward and Dever 1994: 74-87). Ward and Dever relied on archaeological evidence from the Levant ignoring the fact that this region does not have independent means to establish its absolute chronology (Weinstein 1996: 60). The arguments they present are therefore largely circular, as they consider their proposed dates for objects such as the duckbill axe and particular types of scarabs as hard evidence (Ward and Dever 1994: 74-82).

It is now generally acknowledged that absolute dates of archaeological deposits in the Levant can only be established through synchronisms with Egyptian chronology.⁵⁶⁵ It is also largely recognized that the most secure synchronism for this period is provided by the mixed Egyptian and Canaanite ceramic assemblages from stratified deposits at Tell el-Dab'a (Bietak 1984a: 472; 1991: 27; 1997: 125; 2000: 83, 88; Weinstein 1992: 27; 1996: 60-61; Smith 1995a: 76, 85-86; Ben-Tor 1997: 163-64; 2003: 243; Bagh 2000: 26-27). Ward and Dever, however, hardly consider the crucial evidence provided by the mixed assemblages at Tell el-Dab'a, except in stating erroneously that the conclusions based on them rely on a subjective seriation proposed by Bietak (Ward and Dever 1994: 78). As argued elsewhere (Ben-Tor 1997: 164, n. 14; 2003: 243-44) the dates proposed by Bietak for the occupation levels at Tell el-Dab'a are based primarily on the comparison of Egyptian pottery found at the site with ceramic assemblages from Dahshur dated by Arnold (Bietak 1997: 127). Arnold's suggested dates for the Dahshur assemblages are supported by evidence from different regions in Egypt and lower Nubia, and are largely accepted by specialists (Bourriau 1991b: 129-35; 1997; Smith 1995a: 76, 85-86; Bagh 2000: 26-27). The difficulties associated with the high chronology are clearly indicated in the typology proposed by Tufnell, Ward, and Dever; their controversial conclusions affecting the entire corpus of the Middle Bronze Age excavated series, but primarily the early groups attributed by Ward and Dever to periods IIA and III (below).

Disregarding for the moment the absolute dates proposed by Tufnell, Ward, and Dever, their suggested sequence for Middle Bronze Age deposits in which scarabs were found, and their classification of these deposits under different periods provide a useful framework for the study of the Palestinian excavated series. The sequence and division into periods proposed by these authors (Tufnell 1984: 3-24, 53-114; Ward and Dever 1994: 5-7, 62-74) are therefore considered here, taking into account reservations presented in recent studies (Beck and Zevulun 1996; Weinstein 1996) and conclusions presented in previous chapters of this study. The sequence proposed by Tufnell, Ward, and Dever attempts to present the development of scarabs from the First Intermediate Period through the 18th Dynasty. Referring mainly to material from the Levant, it includes also excavated scarabs from Egypt, as no distinction is made between the Levantine and Egyptian material. The Egyptian material constitutes principally scarabs predating and postdating the Middle Bronze Age Palestinian series: First Intermediate Period,

⁵⁶⁵ This situation holds true for the entire east Mediterranean, hence the SCIEM 2000 chronology project initiated by Manfred Bietak and the Austrian Academy (Bietak 2000).

early Middle Kingdom, and 18th Dynasty scarabs (Ward and Dever 1994: 5-6). Yet, Tufnell (1984: 6, 85-86) includes also the late Middle Kingdom sealings from Kahun and Uronarti, and Ward and Dever (1994: 148-56) include Middle Kingdom scarabs from Harageh. The reference to these Middle Kingdom groups allows us to examine the chronology and sequence proposed by these scholars in light of the typology of late Middle Kingdom scarabs presented above.

Classification of the deposits according to periods is not included in Tufnell's 1984 study, though her sequence is identical to that proposed by Ward and Dever. The period classification first established by Ward (1987), and later slightly revised by Ward and Dever (1994: 5) divides the entire corpus of scarabs from the First Intermediate Period to the early 18th Dynasty, represented by selected groups, into six periods. The periods relevant to the discussion in this chapter are IIA, III, IV, V, which refer almost exclusively to the Middle Bronze Age Palestinian series (Ward and Dever 1994: 5-6).⁵⁶⁶ Despite some difficulties (see below), Ward and Dever's archaeological classification of the material according to periods is significant as it distinguishes two main groups among the scarabs found in Middle Bronze Age Palestine: 1. The early series manifested in Periods IIA-III. 2. The late series manifested in Periods IV-V. This division of the Palestinian series into two groups based on the archaeological definition of Ward and Dever's periods has significant chronological and historical implications, which were not fully acknowledged by Ward and Dever. Moreover, once the absolute chronology of the periods is established based on the archaeological evidence from Tell el-Dab'a, this division is strongly supported by evidence from Egypt and the Levant (below). This study will therefore discuss the scarabs comprising each of these groups separately. The main excavated series associated with each group are used as source material for the analysis of designs and features according to the Tufnell and Ward typology, as in the case of the Egyptian series discussed above. The designs and features of each group are compared with those attested in the Egyptian series, thereby demonstrating the Canaanite origin of the bulk of the material and pointing out Egyptian imports.

⁵⁶⁶ First Intermediate Period and early Middle Kingdom scarabs are assigned to periods I-II respectively, and early 18th Dynasty scarabs are assigned to Period VI; the scarabs assigned to these three groups are exclusively Egyptian, even when found in the Levant (Ward and Dever 1994: 5-6).

Chapter III

The early Palestinian series

Scarabs of the early Palestinian series reflect the initial occurrence of scarabs in this region. They were found in archaeological deposits ranging between the last phase of the MBIIA with only a handful of examples, and the early MBIIIB to which most examples are attributed (Weinstein 1975: 1-7; 1992: 35; 1996: 57-58, 60; Beck and Zevulun 1996: 67, 69-72). Ward and Dever assign these scarabs to Periods IIA-III, noting their almost identical typological profile, and the fact that they are closely related archaeologically (Ward and Dever 1994: 5-6). Yet, these scholars maintain their division into two groups, assigning scarabs they associate with MBIIA and the transitional MBIIA-B deposits to Period IIA and those from early MBIIIB deposits to Period III. This division into two groups was significant for Ward and Dever in view of their dating the MBIIA in Palestine to the reign of the 12th Dynasty in Egypt (Ward and Dever 1994: 95-106; Weinstein 1996: 60-61). These scholars thus argue for dating both groups to the 12th Dynasty, group III probably continuing into the early 13th Dynasty (1994: 6, 121). Based on these suggested dates, which were first proposed by Tufnell, the early Palestinian series were placed between the Montet Jar scarabs from Byblos and the late Middle Kingdom sealings from Kahun and Uronarti (Tufnell 1984: 3-6; Ward 1987: 508, n. 6; Ward and Dever 1994: 5-6).

The conclusions presented by Tufnell, Ward and Dever with regard to the date and relative sequence of the early Palestinian series have been challenged in every respect: archaeologically, chronologically, and historically. Evidence presented by Beck and Zevulun (1996: 64-67, 69-72) indicates that most ceramic assemblages containing scarabs attributed by Ward and Dever to the MBIIA and the transitional MBIIA-B should in fact be assigned to the early MBIIIB. Evidence based on the mixed ceramic assemblages at Tell el-Dab'a presented by Bietak (1984a; 1991; 1997: 125-27), Weinstein (1992; 1995; 1996), and Smith (1995a: 76, 85-86) indicates the continuation of the MBIIA in Palestine well into the 13th Dynasty. Evidence based on stylistic analyses of designs and features of the early Palestinian series indicates the Canaanite production of the bulk of the material and the fact that most of these scarabs were inspired by late Middle Kingdom Egyptian prototypes (Keel 1995a: 206, § 566; 2004; Ben-Tor 1997; 2003: 244-46; 2004a: 3).

The evidence presented in the studies noted above argues that there is no justification to divide the scarabs assigned by Ward and Dever to Periods IIA and III into two groups. These scarabs not only display an identical typological profile (below) but most of them come from early MBIIIB deposits, and thus should be considered as one group. The archaeological evidence from Tell el-Dab'a argues for dating deposits of the early MBIIIB in Palestine not earlier than the late 18th century BCE, and more likely in the early 17th century BCE (Bietak 1997: 108-109, 126-27; Ben-Tor 2003: 246). Considering this evidence, the initial occurrence of scarabs in Palestine coincides with the final phase of the Middle Kingdom and the beginning of the Second Intermediate Period in Egypt, and not with the 12th Dynasty (Ben-Tor 2004a). The designs and features of these scarabs, which strongly argue for their Canaanite production and their inspiration from late Middle Kingdom Egyptian prototypes support the dates indicated by the Tell el-Dab'a evidence (Ben-Tor 1997; 2003: 244-45).⁵⁶⁷ Moreover, the dates suggested by Tufnell, Ward, and Dever for the early Palestinian series imply commercial and cultural contacts between 12th Dynasty Egypt and Palestine (Weinstein 1996: 61), which are not supported by evidence in either region (Weinstein 1975; 1992; Ben-Tor 1994; 1997). On the other hand, close commercial and cultural contacts between Second Intermediate Period Egypt and Palestine are indicated in the archaeological evidence in both regions, further supporting an end of Middle Kingdom to early Second Intermediate Period date for the early Palestinian series (Ben-Tor 2004a: 5).

Supporting evidence for the low chronology is provided by a recent discovery of great importance constituting some 50 sealings from a secure mid MBIIA context at Ashkelon,⁵⁶⁸ made almost exclusively by Egyptian late Middle Kingdom scarabs. This group, displaying a distinctive late Middle Kingdom administrative practice (above, introduction to chapter I), is unique so far in Palestine. It is, however, identical in every respect to the groups of sealings from late Middle Kingdom administrative units in Egypt and lower Nubia discussed above (§IA). The 13th Dynasty date indicated by the late Middle Kingdom type scarabs used for the sealings (above, introduction to chap-

⁵⁶⁷ Ward's use of royal-name scarabs bearing names of 12th Dynasty kings to support his suggested date for the early Palestinian series is contested by the typology of Middle Kingdom royal-name scarabs presented above (§IB 1; see also Ben-Tor 2003: 241-42).

⁵⁶⁸ The sealings were found during excavations of the Leon Levy expedition to Ashkelon under the direction of Lawrence Stager, and they are currently being prepared for publication by Lanny Bell (see Cohen 2002: 130-31; Stager 2002: 353). I am grateful to both Lawrence Stager and Lanny Bell for their permission to examine the sealings and to refer to them in this study.

ter I) was confirmed by Bietak, who examined the pottery associated with them and noted its close similarity to the Canaanite pottery found in both phases of stratum G at Tell el-Dab`a.⁵⁶⁹

Taking into account evidence from Egypt and the Levant it was reasonable to assume that these sealings were used to secure containers shipped from Egypt to the port at Ashkelon. Yet, preliminary neutron activation analysis and petrographic tests performed on a small number of these sealings by Patrick McGovern and Yuval Goren indicate that at least some of them were made locally, suggesting the adaptation of an Egyptian late Middle Kingdom administrative practice at Ashkelon.⁵⁷⁰ It should be noted, however, that evidence for commercial relations between Egypt and Palestine in the first half of the 13th Dynasty is attested almost exclusively in the Canaanite settlement at Tell el-Dab`a. No such evidence exists in Palestine or anywhere else in Egypt, including the el-Lisht-Memphis region, the location of the Middle Kingdom capital where imported Canaanite jars from Palestine are first recognized in late 18th century contexts (Arnold et al. 1995: 24-27; Ben-Tor 2003: 246, and n. 21).⁵⁷¹ The evidence therefore suggests that the Ashkelon sealings reflect trade contacts between Ashkelon and Tell el-Dab`a rather than the Middle Kingdom residence. It is important to note that no late Middle Kingdom scarabs are attested in contemporary contexts at Ashkelon or any other site in Palestine. Moreover, the number of late Middle Kingdom scarabs in the Palestinian series is notably small and insignificant compared with the number of local productions (Ben-Tor 1997: 185-87; below §IIIA, IVA). Considering this evidence, the Ashkelon sealings seem to suggest no more than small-scale sea trade between coastal cities in southern Palestine and Tell el-Dab`a when the Canaanite settlement at Tell el-Dab`a was still under late Middle Kingdom rule. The adaptation of this late Middle Kingdom administrative practice in some southern coastal Canaanite towns such as Ashkelon and perhaps also Tell el-`Ajjul,⁵⁷² may be compared with the adaptation of this custom later at Kerma (above, §IIb 4c3). Yet, the small number of late Middle Kingdom scarabs in the Palestinian series, and the almost complete absence of sealings in Middle Bronze Age deposits argue that unlike in the case of Kerma, this practice did not become common in Middle Bronze Age Palestine.

Apart from the so far isolated find from Ashkelon, no scarabs are attested in mid MBIIA deposits in Palestine. Moreover, considering the evidence presented by Beck and Zevulun (1996), hardly any scarabs originated in MBIIA deposits in this region. The few exceptions come exclusively from the final phase of the MBIIA, as in the case of two scarabs from Aphek (Weinstein 1992: 35; Keel 1997: 82-83, nos. 14-15). The two scarabs from tomb 303 in the courtyard cemetery at Tell el-`Ajjul (Tufnell 1980, Fig. 3: 5, 6; Keel 1997: 266-67, nos. 483-484) were attributed by Beck and Zevulun (1996: 67) respectively to the final phase of the MBIIA and early MBIIB.⁵⁷³ It is interesting to note that these four early examples – the two Aphek scarabs and the two scarabs from tomb 303 in the courtyard cemetery at Tell el-`Ajjul – are Egyptian Middle Kingdom imports. The design and features of the Aphek scarab depicting two antelopes and two hippopotami tête bêche (Keel 1997: 83, no. 15) argue for an early Middle Kingdom date (Ben-Tor 1998: 4-5), and thus for the scarab being an heirloom in the context in which it was found. The other three scarabs display late Middle Kingdom designs and features.⁵⁷⁴ This is also true in the case of a scarab from tomb AN at Tell el-Far`ah (N) (Ward and Dever 1994: Fig. 5:1c: 68; Amiet et al. 1996: Pl. 7: 40), and a loom-weight sealing from Tel Nami from the last phase of the MBIIA at the site (Marcus and Artzy 1995: 136-37), both displaying distinctive late Middle Kingdom designs.⁵⁷⁵ These Egyptian imports⁵⁷⁶ provide a *terminus*

⁵⁶⁹ I am grateful to Manfred Bietak for sharing this information with me. For the 13th Dynasty date of stratum G see Bietak 1991: 34-38; 1997: 100-105; Weinstein 1992: 29-30; 1995: 86.

⁵⁷⁰ I am grateful to Lawrence Stager for this information. Further examinations hopefully will determine the origin of the entire group, whether it is exclusively of local origin or if it includes imported as well as locally made examples. See Cohen-Weinberger and Goren 2004: 83.

⁵⁷¹ The early-mid 13th Dynasty context of the Dolphin vase from el-Lisht is uncertain (Bourriau 1996: 110-16), but even if correct it only indicates isolated luxury imports as stated also by Bourriau (1996: 116).

⁵⁷² One such sealing, made by a private-name scarab, was found in an unclear context at Tell el-`Ajjul (see Ben-Tor 1994: 13, no. 10).

⁵⁷³ For isolated additional examples that may have originated in the final phase of the MBIIA see Keel (1995a: 25-28, §45) and Ilan (1996: 241).

⁵⁷⁴ These include a private-name scarab from Aphek, a small *rdi-r^c* type scarab, and a scarab displaying linked spirals enclosing three scarab beetles from Tell el-`Ajjul. The latter was considered as a royal-name scarab bearing the Horus name of King Amenemhat IV (Tufnell 1980: 38-39). Even if this is indeed the case the scarab provides no more than a *terminus post quem* for its context, which according to Beck and Zevulun should be attributed to the early MBIIB (1996: 67) and is therefore significantly later than the scarab.

⁵⁷⁵ For close parallels from Uronarti see, respectively, Reisner 1955, Fig. 15: 365, 367; Fig. 10: 253-257.

⁵⁷⁶ In the case of the loom weight from Tel Nami only the scarab was imported (Marcus and Artzy 1995: 145-49).

post quem for their contexts, which further argues against the 12th Dynasty date proposed by Tufnell, Ward and Dever for the early Palestinian series.⁵⁷⁷

The archaeological contexts and the distribution of the early Palestinian series indicate the primary use of these scarabs as funerary amulets in Canaanite tombs, and their southern and central Palestinian origin (see also Ilan 1996: 241-42). The largest groups were found in early MBII B Canaanite cemeteries at Jericho, Tel Aviv Harbor, Rishon Leziyyon and Megiddo (Ben-Tor 1997: 185-87; below). As indicated by the evidence noted above, the initial occurrence of scarabs in Palestine cannot predate the late 18th century BCE, and thus coincides with the final decline of the Middle Kingdom. However, as argued elsewhere (Ben-Tor 2003: 245-46), this time also saw significant growth and development in the Canaanite settlement at Tell el-Dab`a (Bietak 1991: 38-40; 1996: 49). It was therefore suggested that scarabs of the early Palestinian series do not reflect relations with Middle Kingdom Egypt, but a Canaanite adaptation of an Egyptian funerary custom that was transmitted through the Canaanite population in the eastern Delta (Ben-Tor 1994: 11; 1997: 187-88).

The large number of scarabs found in Middle Bronze Age sites in Palestine is unparalleled in this region at any other period and undoubtedly reflects strong Egyptian cultural influence. It is thus very likely that these scarabs reflect the close commercial contacts and cultural interaction between Egypt and Palestine during the Second Intermediate Period, when Canaanite-populated settlements are attested in the eastern Delta, and a dynasty/dynasties of Canaanite origin ruled over northern Egypt (Bourriau 2000: 186-95). The close cultural interaction between the two regions is manifested first and foremost in the massive Canaanite material culture at a number of eastern Delta sites (Bietak 1996; 1997; Holladay 1997; McGovern and Harbottle 1997; Bourriau 2000: 186-95). It is also manifested in the large number of scarabs found in Middle Bronze Age contexts in Palestine (Tufnell 1984; Ward 1987; Keel 1995a), the Egyptianized iconography of their designs (below), and their extensive use as funerary amulets in Canaanite tombs. It is also manifested in the large-scale importation of Canaanite scarabs into Egypt (above, §IIb).

It has been argued (Ben-Tor 2003: 246; 2004a: 5) that scarabs of the early Palestinian series reflect the initial phase of this cultural interaction, which lasted throughout the Second Intermediate Period. The recent discovery of the Ashkelon sealings (above) indicates that cultural interaction between the two regions began, though on a small scale, already during the late Middle Kingdom, most likely as a result of the initial immigration of Canaanites into the eastern Delta. The almost complete absence of Canaanite pottery from Palestine in Egypt outside Tell el-Dab`a earlier than the late 18th century BCE argues that commercial contacts with Palestine were initiated by the Asiatic population at Tell el-Dab`a. Commercial and cultural relations between Middle Kingdom Egypt and the Levant are attested almost exclusively in the northern Levant, primarily at Byblos (Weinstein 1974: 56; 1975: 13-14). As argued elsewhere (Ben-Tor 2003: 246; 2004a: 4) the archaeological evidence at Byblos indicates that these relations ended sometime between the late 18th - early 17th centuries BCE,⁵⁷⁸ coinciding with the first occurrence of scarabs in Palestine, and the initial importation of Canaanite pottery from Palestine to the el-Lisht - Memphis region. It was therefore concluded that the beginning of large-scale use of scarabs in Palestine coincides with the beginning of the Second Intermediate Period in Egypt (Ben-Tor 2004a: 5).

The chronological scope suggested in this study for the early Palestinian series ranges between ca. 1700-1630 BCE, the time span largely corresponding with that proposed for the 14th Dynasty and the beginning of the 15th Dynasty in the eastern Delta (Bietak 1997: 108-110; O'Connor 1997: 48-52; Bourriau 2000: 190-92). The recently suggested date and Canaanite origin assigned to most scarabs of the early Palestinian series best explain the distinct stylistic differences between these scarabs and those of the early and late Middle Kingdom series. Tufnell noted many such differences in her discussion of the Kahun and Uronarti sealings (1984: 85-86) but in most cases she was unable to offer convincing explanations. The conclusions presented above explain problematic results of the Tufnell and Ward typology these authors could not account for. These are discussed in association with the individual design classes below.

Ward was the first to note the occurrence of particular motifs in the early Palestinian series before they occur in Egypt, where they are not attested in contexts earlier than the time of the 15th Dynasty. However, although unable to provide a convincing explanation for this situation, Ward refused to consider a Canaanite origin for these scarabs (Ward 1987: 523-26; Ward and Dever 1994: 118-20). Moreover, he did not recognize the distinctive stylistic profile of the early Palestinian series, nor the fact that scarabs displaying this profile are almost completely absent in Egypt including the eastern Delta. It has been argued (Ben-Tor 1997) and it is further argued below that this distinctive profile, which is manifested in particular designs and features, indicates the Canaanite origin of these scarabs.

⁵⁷⁷ Especially in the case of the fragmentary private-name scarab from Aphek, which clearly displays Martin's back type 6 and was thus dated to the 13th Dynasty (Martin 1991: 206).

⁵⁷⁸ For a different view see Cohen-Weinberger and Goren 2004: 83-84

As noted above, the largest groups comprising the early Palestinian series come from the early MBIIB cemeteries at Jericho (Kirkbride 1965, groups I-II), Megiddo (Tufnell 1973: Phases A-D), Tel Aviv Harbor (Kaplan 1955; Tufnell 1984: 54-55), and Rishon Leziyyon (Levy 1993; Ben-Tor 1997: 162-63).⁵⁷⁹

Tufnell reassigned some of the Jericho scarabs originally assigned to groups I and II, e.g. those from tomb A 34 phase 4 (1984: 70-71) and some of those found in tomb J14 (1984: 73-74), to groups III and IV respectively. She also reassigned tomb P 17, originally assigned to group II, to group III (1984: 67-68). These reassignments are considered here only in the case of scarabs displaying distinctive late characteristics from tomb J14 (Kirkbride 1965: Fig. 288: 2, 14-16, see design classes 6C and 9 below). As for the other scarabs from this tomb, Tufnell herself notes that it is impossible to determine which scarab came from which phase in the tomb and her assignments are tentative (1984: 73). Her parallels for the pottery in phase 4 of tomb A 34 come exclusively from early MBIIB contexts at Kfar Szold, Aphek, Tel Aviv Harbor, and the courtyard cemetery at Tell el-`Ajjul (1984: 59, 70-71), arguing for assigning the scarab from this phase to the early series. As for the scarabs from tomb P17 (Kirkbride 1965: Fig. 289: 1-14), only those displaying distinctive early characteristics are included. It should also be noted that most scarabs from tombs B3 assigned in the report to group III (Kirkbride 1965: Fig. 293), display distinctive early characteristics as noted also by Tufnell (1984: 63), and they are included here in the early series. This is also true for most scarabs from tomb B35 (Kirkbride 1965: Fig. 292), and three of the five scarabs from tomb A38 (Kirkbride 1965: Fig. 293: 14-16), which probably represent early phases of these tombs, both used over a long period of time (Tufnell 1984: 70, 72). The number of examples displaying early characteristics from tombs B3, B35, and A38 argues for the continuation of early-series type scarabs into early group III at Jericho.

Four scarabs from the courtyard cemetery at Tell el-`Ajjul; two from tomb 1406, and two from tomb 1410B are also assigned to the early series (Weinstein 1975: 4-5, Fig. 2: 1-2),⁵⁸⁰ as well as two scarabs recently found at Azor (Gorzalczy, Ben-Tor, and Rand 2003: 173-75). Although representing the initial phase of large-scale production of scarabs in Palestine, the group comprising the early series is significantly smaller than the later group attributed by Ward and Dever to periods IV-V. The published material does not necessarily reflect the actual proportion in the number of scarabs between the early and late periods, but it clearly reflects a significant increase in the number of scarabs in the late series. It is interesting to note, however, that once the early series were defined stylistically (Ben-Tor 1997), many examples were noted by this author among unpublished material in Israel, confirming the large-scale production of the early types. Moreover, a recent study of these scarabs by Keel (2004) points out distinctive characteristics of their features, which allow defining a stylistic profile of this group (below, §IIIB 1-3).

This stylistic profile is also attested on scarabs from the early MBIIB cemetery at Ginnosar (Giveon 1978b: 85, Figs. 42-43; Ward and Dever 1994: 63-64), tomb 24 at Megiddo (Guy 1938: Pls. 105-106),⁵⁸¹ Tomb AA at Tell el-Far`ah (N) (Amiet et al. 1996: 65, and Pl. 7, nos. 34-35),⁵⁸² and tombs 12 and 13 at Beth Shemesh (Grant 1929: 89). It is occasionally also attested on examples from unclear contexts or later contexts at other sites. Among the latter are six of the nine scarabs from tomb 15 at Gibeon (Pritchard 1963: Fig. 70: 14, 15, 17, 18, 19, 21),⁵⁸³ and seven of the ten scarabs from cistern 9024 at Hazor (Tufnell 1984: 57, Fig. 17: 24, 25, 27, 29, 30, 31, 32).⁵⁸⁴ The Hazor group, originally considered by Tufnell among the early groups (Tufnell 1984: 56-57, Fig. 17), was later dismissed as representing the early series considering the mixed MBIIB deposit in which it was found (Ward and Dever 1994: 5, 62, 156). It is argued below, however, that Tufnell's initial observation with regard to the early stylistic profile of most scarabs in this group was correct. The occurrence of early Canaanite scarabs in later contexts indicates that

⁵⁷⁹ The Rishon Leziyyon group includes 86 scarabs from the 1992-1994 seasons and 57 scarabs from the 1997-1998 seasons. The scarabs are largely unpublished except for the few base designs presented in Ben-Tor 1997. The pottery assemblages associated with these scarabs include early MBIIB forms (Levy 1993), and a significant number of these scarabs display the stylistic profile of early Canaanite scarabs. The group also includes some late Middle Kingdom imported scarabs and a small number of scarabs displaying the stylistic profile of the late Palestinian series, indicating the existence of an advanced MBIIB phase in the cemetery, which is confirmed by the pottery (Levy personal communication). The pottery from the cemetery is still unpublished, hence the delay in the final publication of the scarabs; as most burials were found intact the final publication of the scarabs will associate them with the ceramic assemblages with which they were found. The discussion in this study includes only a select group from the 1992-1994 seasons displaying distinctive early characteristics. The scarabs found in the 1997-1998 seasons are not included in this study except for isolated examples noted to prove the occurrence of a particular design on early Canaanite scarabs. Drawings of the latter are not yet available.

⁵⁸⁰ Keel 1997: 206-207, nos. 306, 307 (tomb 1406), nos. 308, 309 (tomb 1410B).

⁵⁸¹ For the early MBIIB origin of this tomb see Ward 1987: 515; Ward and Dever 1994: 27, Fig. 3:1.

⁵⁸² Tomb AN at the site, which is dated to the late MBIIA, yielded a late Middle Kingdom scarab (see above).

⁵⁸³ No. 17 is a late Middle Kingdom import of amethyst.

⁵⁸⁴ No. 24 is a late Middle Kingdom import.

heirloom scarabs are as likely to be found in Palestine as in Egypt.⁵⁸⁵ The Gibeon and Hazor examples argue for the possible occurrence of heirlooms comprising more than a single item.

Table 3 –Principal sites yielding scarabs of the early Palestinian series (arranged north to south)

Site	Early MBII occupations yielding scarabs	Notes
Ginnosar	Tombs assigned to the early MBII B (Giveon 1978b: 85- 87, Figs. 42-43; Ward and Dever 1994: 63-64).	Most scarabs found in these tombs display early Canaanite characteristics (Giveon 1978b: Figs. 42-43).
Megiddo	Tombs assigned to Kenyon's phases A-D (Tufnell 1973; Ward 1987: 512-17; Ward and Dever 1994: 5-6, 65). Tomb 24 (Guy 1938: Pls. 105-6; Ward 1987: 515; Ward and Dever 1994: 27).	Most scarabs found in these tombs display early Canaanite characteristics (Tufnell 1973: Figs. 1-2).
Tell el-Far`ah (N)	Tomb AA assigned to the transitional MBII A-B (Amiet et al. 1996: 65). Tomb AN assigned to the late MBII A (Amiet et al. 1996: 71; Ward and Dever 1994: 66).	Two scarabs from tomb AA, one displays early Canaanite characteristics (Amiet et al. 1996: Pl. 7: 35), the other (Amiet et al. 1996: Pl. 7: 34) is probably an import from Tell el-Dab`a (above, §IIb 5c). Tomb AN yielded an Egyptian late Middle Kingdom scarab (Amiet et al. 1996: Pl. 7: 40).
Aphek	Occupation levels assigned to the late MBII A (Weinstein 1992: 35; Ward and Dever 1994: 67-68).	Two late Middle Kingdom imported scarabs (Giveon 1988: 44-46, nos. 37-38).
Tel Aviv Harbor	Tombs assigned to the early MBII B (Kaplan 1955; Tufnell 1984: 54-55; Ward and Dever 1994: 66-67; Beck and Zevulun 1996: 67).	Most scarabs found in these tombs display early Canaanite characteristics (Tufnell 1984: Fig. 16).
Rishon Leziyyon	Tombs assigned to the transitional MBII A-B and early MBII B (Levy 1993; Ben-Tor 1997: 162-63).	About 150 scarabs, most of them unpublished, the great majority displaying early Canaanite characteristics (Ben-Tor 1997).
Jericho	Tombs assigned to Kenyon's groups I-II (Tufnell 1984: 59-67; Ward 1987: 513, 518-23; Ward and Dever 1994: 5-6, 68-71; Beck and Zevulun 1996: 69-72).	Most scarabs found in these tombs display early Canaanite characteristics (Kirkbride 1965: Figs. 282-89), which are also attested on some scarabs from group III (Kirkbride 1965: Figs. 292-93).
Beth Shemesh	Tombs 12 and 13 assigned to the early MBII B (Grant 1929: 115-160; Ward and Dever 1994: 27).	Most scarabs found in these tombs display early Canaanite characteristics (Grant 1929: 89).
Tell el-`Ajjul	Tombs 1406, 1410, and 303 in the courtyard cemetery assigned to the transitional MBII A-B (Weinstein 1975: 4; Ward and Dever 1994: 71-73; Beck and Zevulun 1996: 67).	Tombs 1406, 1410 yielded four scarabs displaying early Canaanite characteristics (Ward and Dever 1994: Fig. 5:1a: 1-4). Tomb 303 yielded two late Middle Kingdom scarabs (Tufnell 1980: Fig. 3: 5-6).

Considering the relatively small number of scarabs comprising the early series, examples displaying the stylistic profile of this group are included even when found in unclear or later contexts. As in the case of the Second Intermediate Period series discussed above in chapter II, it seems that the small number of published examples in the early Palestinian series does not necessarily reflect the existence or popularity of each and every design.

⁵⁸⁵ See also Ben-Tor 1994.

§IIIA. Typology of Designs

The design typology of the early Palestinian series is established, as in the case of the Egyptian series, on examining the scarabs comprising these series according to Tufnell's ten design classes and various subclasses. The motifs and designs attested on scarabs of the early Palestinian series are compared with those occurring on the Egyptian examples presented in the previous chapters in order to establish their origin. A Canaanite origin is attributed to motifs and designs that are completely absent on late Middle Kingdom scarabs, as well as to misrendered and poorly executed variations of Egyptian designs, which indicate ignorance of their original meaning (see Ben-Tor 1997). Like the Egyptian scarabs discussed in the previous chapters scarabs of the early Palestinian series display mixed designs, which are categorized in most cases according to the dominant motifs. As in the case of the Second Intermediate Period Egyptian series, some examples are categorized under more than one design class in order to present all existing variations.

§IIIA 1. Design class 1 – Linear patterns

Tufnell presents examples for four subclasses of design class 1: 1B – geometric, 1C – human figures, 1D – animals and insects, and 1E – floral motifs (Tufnell 1984: 115-16, Pl. 1), yet, the examples presented for the first three subclasses are highly problematic. The early Middle Kingdom Montet Jar scarabs categorized under subclasses 1B and 1C do not belong among the significantly later Palestinian examples (see also Keel 1995a: 163, § 426-427). The examples categorized by Tufnell under design class 1D most certainly display the scarab hieroglyph, and not the insect as seems to be the case in the First Intermediate Period and early Middle Kingdom examples presented by Ward (1978: Pl. 6: 154-159). This is indicated by other hieroglyphs like the sun disk or *nb* signs associated with it on some examples.⁵⁸⁶ Keel categorizes scarabs bearing this design under design class 9 (1995a: 189, §516); however, considering the more likely interpretation of the signs as hieroglyphs, this group is categorized here under design class 3A3 (below).

One of the designs categorized as geometric by Tufnell and presented under subclass 1B (Tufnell 1984: Pl. 1: 1007-1012) is better categorized under design class 1E as it has been shown to display a branch (Keel 1995a: 164, §432-433).⁵⁸⁷ Some of the Tell el-`Ajjul examples presented by Tufnell under subclass 1B (1984: Pl. 1: 1016-1018, 1020) date from the Late Bronze Age and early Iron Age as shown by Keel (1995a: 163, §426; 1997: Tell el-`Ajjul nos. 462, 812, 949, 872). Another Tell el-`Ajjul example (Tufnell 1984: Pl. 1: 1013) is better categorized under design class 3E4 (Keel 1997: 336-37, no. 687).⁵⁸⁸ This leaves only three unique examples (Tufnell 1984: Pl. 1: 1006, 1014, 1019), hardly justifying a design category. The discussion in this chapter therefore refers only to design class 1E depicting floral motifs.

§IIIA 1a. Design class 1E – Floral motifs

As in the case of the Egyptian series discussed above, the three-stem papyrus plant constitutes the most common floral motif in the Palestinian series (Tufnell 1984: 116, Pl. 3). Like the Second Intermediate Period Egyptian series, the Palestinian series do not display the three stem papyrus as primary motif,⁵⁸⁹ but usually surmounting a central motif or flanking it above and below. The mixture of designs attested on late Middle Kingdom and Second Intermediate Period scarabs is also attested in the Palestinian series, and most of Tufnell's examples for design class 1E can also be categorized under other designs (below). Yet, the particular designs depicting the three-stem papyrus in the Palestinian series have, as noted above (§IIA 1a) significant chronological implications, as they are not attested in the known corpus of late Middle Kingdom scarabs. It is demonstrated below that this is only one of many designs occurring in the early Palestinian series, which are attested in the Egyptian Second Intermediate Period series but are completely absent in the known corpus of Middle Kingdom scarabs. These examples provide additional arguments against the 12th Dynasty date proposed by Tufnell, Ward, and Dever for the early Palestinian series.

⁵⁸⁶ Tufnell's interpretation of examples depicting the scarab with sun disk as the insect rolling the ball of dung is unlikely in this context, though the symbolic combination of these two signs is evident.

⁵⁸⁷ Keel (1995a: 164, §433) categorizes the branch motif separately by adding subclass 1F.

⁵⁸⁸ The design on this example strongly argues for its Egyptian Second Intermediate Period origin (above, §IIA 3e), which is supported by the fact that it is a cowroid of the type associated with King Apophis (above, §IIB 1).

⁵⁸⁹ The only exception is a cowroid of the type associated with King Apophis (above, §IIB 1) from group V at Jericho (Kirkbride 1965: Fig. 299: 20). Parallels for the design on this example (e.g. Keel 1997: 166-67, 380-83, nos. 183, 810) argue for an early 18th Dynasty date, which has significant chronological implications on the absolute chronology of the Jericho groups. For the continuation of this type of cowroid into the early 18th Dynasty see Keel 1995a: 79, §191, and especially Keel 1997: 174-75, 182-83, nos. 209, 239.

The three-stem papyrus occurs on a small number of examples in the early series: two scarabs from Jericho (**Pl. 50: 1-2**),⁵⁹⁰ two from Megiddo (**Pl. 50: 3-4**), one from Tel Aviv Harbor (**Pl. 50: 5**), one from Rishon Leziyyon (**Pl. 50: 6**), and one from Azor (**Pl. 50: 7**). The Jericho examples (**Pl. 50: 1-2**) depict the plant in association with design class 3A4 (below), and the Tel Aviv Harbor (**Pl. 50: 5**), Azor (**Pl. 50: 7**), and one of the Megiddo scarabs (**Pl. 50: 3**), depict it in association with design class 3C (below). Both these design classes are distinctive of early Canaanite scarabs (below). The Rishon Leziyyon example (**Pl. 50: 6**) depicts the design in association with the sign of union (design class 3A1), and the other Megiddo example (**Pl. 50: 4**) depicts it with a symmetric arrangement of hieroglyphs (design class 3B). The scarabs from Rishon Leziyyon and Tel Aviv Harbor depict the three-stem papyrus above and below the central motif (**Pl. 50: 5-6**). The fact that both patterns of the three-stem papyrus on Canaanite scarabs (depicting the motif above or above and below a central design) are absent in the Middle Kingdom corpus and are first attested in the early Palestinian series, argues for their Canaanite origin, which is further supported by the association of these patterns with design classes 3A4 and 3C (below).

An unusual floral pattern probably inspired by the three-stem papyrus occurs on a scarab from tomb 24 at Megiddo belonging to the green jasper group (**Pl. 50: 8**), the Canaanite origin of which has been demonstrated by Keel (1989: 211-42). Most examples belonging to the green jasper group come from the late series (Keel 1989: 217-28), yet the Megiddo example noted above argues for its initial occurrence in the early phases of the MBIIb, which is supported by an example from tomb 13 at Beth Shemesh (Keel 1989: 223, no. 25).

Two out-curved papyrus stems, usually flanking a central motif, occur on a small number of scarabs in the Palestinian series (Tufnell 1984: Pl. 2), sometimes replacing the three-stem papyrus in similar designs (Tufnell 1984: Pl. 2: 1061, 1064). Their absence in the early series and on scarabs displaying an early stylistic profile suggests a chronological difference (below, §IVA 1a).

The early Palestinian series include a unique example from Jericho depicting a lotus flower among symmetric hieroglyphs (**Pl. 50: 9**). The lotus is not attested on additional examples, but it occasionally occurs as back decoration on Canaanite scarabs in the early series (below, §IIIB 1-3).⁵⁹¹ The late Middle Kingdom origin of lotus flowers decorating the back is attested in examples presented by Tufnell (1970: Fig. 1: 1-9), which indicate the source of inspiration for this back decoration on Canaanite scarabs. Lotus flowers decorating the scarab's base are rare in the known corpus of Middle Kingdom scarabs, but the motif is attested on both early and late Middle Kingdom examples (Ward 1978a: Pl. 8: 217, 231; Tufnell 1975: Fig. 2: 4, 8, 12, 47), providing a possible source of inspiration for the Jericho example. The Canaanite origin of this scarab is indicated by the combination of motifs comprising its design (below, design class 3B1) as well as by its features (below, §IIIB 3).

The branch is attested on two early examples from Megiddo (**Pl. 50: 10-11**), which argue for the occurrence of this motif in the early series, though most examples, whether depicting it as primary or secondary motif, are assigned to the late series (Keel 1995a: 164, § 433; below, §IVA 1a). As noted above (§IIb 4c2), the initial occurrence of the branch is attested on two scarabs from Sāi island displaying features of the early Tell el-Dab`a workshop (Gratien 1986: Fig. 286: Ib, IIb). These scarabs and the three Megiddo examples depict the branch as a secondary motif. As in the case of the lotus flower, branches decorating the back occur on Canaanite scarabs beginning in the early series.⁵⁹² Unlike the lotus flower, the branch is not attested on Egyptian Middle Kingdom scarabs. Moreover, the inspiration of the branch motif from the Levantine cultural sphere is indicated by its close association with the nude goddess (Keel 1995a: 164, §433).

The number of scarabs displaying design class 1E in the early Palestinian series is significantly smaller than the number of examples attested in the late series (below, §IVA 1a). Except in the case of the branch, the Egyptian late Middle Kingdom origin of the motifs comprising design class 1E on these scarabs is apparent. Nevertheless, the Canaanite origin of the scarabs discussed above is indicated by particular variations and combinations of these motifs, which are not attested in the known corpus of Middle Kingdom scarabs. The association of the design with distinctive early Canaanite designs such as 3A4 and 3C, and the features of most examples (below, §IIIB 1-3) further support the Canaanite origin of the examples attested in the early Palestinian series.

⁵⁹⁰ Another example from Jericho (Kirkbride 1965: Fig. 283: 23), depicting the motif in the form of the hieroglyph *h3*, is presented in **Pl. 52: 47** with design class 3B1. The scarab presented in Kirkbride 1965: Fig. 293: 6 from tomb B3 was originally assigned to group III, but Tufnell assigns it to group I (1984: Pl. 3: 1076).

⁵⁹¹ E.g. Loud 1948: Pl. 149: 55 from Megiddo (also depicting a branch, see next note); Kirkbride 1965: Fig. 282: 7 from Jericho; Giv'eon 1978b: Fig. 43: 7 from Ginnosar; Ward and Dever 1994: 99, Fig. 5:1a: 1, 3 from the courtyard cemetery at Tell el-`Ajjul. See discussion of features below (§IIIB).

⁵⁹² E.g. Tufnell 1984: 55, Fig. 16: 20 from Tel Aviv Harbor cemetery; Ward and Dever 1994: 99, Fig. 5:1a: 1 from the courtyard cemetery at Tell el-`Ajjul.

§IIIA 2. Design class 2 – Scrolls and spirals

Design class 2 occurs in the Palestinian series depicting unlinked as well as interlocking scrolls and spirals, both subclasses (2A and 2B) attested mainly in the late series (Tufnell 1984: 116-17, Pls. 4-5).

§IIIA 2a. Design class 2A – Scrolls and spirals, unlinked

Unlinked scrolls and spirals are attested only on a small number of scarabs in the Palestinian series (Tufnell 1984: 116, Pl. 4: 1131-1160). Depicting mainly S or Z scrolls and isolated examples of C scrolls, the designs on these scarabs display, like the Second Intermediate Period examples discussed above (§IIA 2a) inferior workmanship compared with the well-executed examples of the late Middle Kingdom.⁵⁹³ It is interesting to note that as in the case of design class 1E the Palestinian series display the same patterns as those attested on scarabs of the Second Intermediate Period Egyptian series (see design class 2A in the late series below, §IVA 2a).

The early series yielded only one example displaying design class 2A, from the courtyard cemetery at Tell el-`Ajjul (Pl. 50: 12). The original context of an example from tomb J54 at Jericho assigned to group II (Kirkbride 1965: Fig. 283: 3) was questioned by Tufnell (1984: 63), who suggests a likely confusion in the records of three of the scarabs assigned to this tomb, which have exact duplicates in groups IV and V.⁵⁹⁴ The most likely Canaanite origin of the scarab from Tell el-`Ajjul is indicated by its features (below, §IIIB). Considering the small corpus of the early Palestinian series, the almost complete absence of design class 2A may reflect accident of survival. It can nevertheless be argued that the design was not among the popular designs of early Canaanite scarabs (see also design class 2B below).

§IIIA 2b. Design class 2B – Scroll and spirals, interlocking

Design class 2B is more prevalent in the Palestinian series than design class 2A, most examples coming from the late series (Tufnell 1984: 116-17, Pls. 5-6; below, §IVA 2b). The early series yielded three examples from Megiddo (Pl. 50: 15; Tufnell 1973: Figs. 1, 3: 6, 129), three from Jericho (Kirkbride 1965: Fig. 283: 17, Fig. 284: 2, Fig. 286: 4),⁵⁹⁵ two from Beth Shemesh (Pl. 50: 13-14), and two from Rishon Leziyyon (Field nos. 9/92 3144, 9/92 2997). The designs and features of two of the Megiddo examples (Loud 1948: Pl. 149: 48 = Tufnell 1973: Fig. 1: 6; Loud 1948: Pl. 149: 8 = Tufnell 1973: Fig. 3: 129), both Rishon Leziyyon examples, and the three Jericho examples argue for the Egyptian Middle Kingdom origin of these scarabs. The two examples from Beth Shemesh (Pl. 50: 13-14) and the third example from Megiddo (Pl. 50: 15),⁵⁹⁶ display, however, distinctive early Canaanite features (below, §IIIB1-3) attesting to the imitation of this distinctive late Middle Kingdom design on early Canaanite scarabs. As in the case of design class 1E the Egyptian Middle Kingdom inspiration on the Canaanite examples is evident; the example from Beth Shemesh depicting two Z spirals in combination with *ḥnl* and *nfr* signs has a close parallel among the Uronarti sealings (Tufnell 1975: Fig. 3: 110). The fact that no other published early examples are known suggests that like design class 2A design class 2B was not among the favored designs of early Canaanite scarabs (see however design classes 3A3, 3A4, and 3C below).

Tufnell notes the relative scarcity of design class 2 in the Palestinian series in comparison with its great popularity at Kahun and Uronarti (Tufnell 1984: 116-17), for which she can offer no explanation. Once the Egyptian and Palestinian series are treated separately and dated on the basis of the recent studies noted above, it is possible to show the development of design class 2 (both subclasses 2A and 2B). First appearing on the early Middle Kingdom scarabs, designs comprising scrolls and spirals become most popular on late Middle Kingdom scarabs. Their popularity is significantly reduced in the Second Intermediate Period when most examples are attested in the Palestinian series, mainly on Canaanite scarabs (below, §IVA 2b), except in the case of royal-name scarabs bearing the throne name of King Apophis (above, §IIB 1). It is interesting to note that although clearly inspired from Middle Kingdom prototypes, design class 2 is far more popular on Canaanite scarabs of the late Palestinian series. This phenomenon is also attested in the case of other Middle Kingdom designs (see design classes 3B4, 3B5, 3B6 below).

⁵⁹³ Compare Tufnell 1975: Fig. 3 with Tufnell 1984: Pl. 4.

⁵⁹⁴ Kirkbride 1965: Fig. 283: 3 = Fig. 299: 18, Fig. 283: 6 = Fig. 297: 10, Fig. 283: 10 = Fig. 297: 13. An additional example, not noted by Tufnell is depicted in Fig. 283: 5 = Fig. 297: 9. Tufnell's observation is supported by the association of a scarab displaying design class 6C1 with tomb J 54 (Kirkbride 1965, Fig. 283: 4), which is highly unlikely (see design class 6C1 below).

⁵⁹⁵ The scarab from Tomb J 14 (Kirkbride 1965: Fig. 288: 1), originally attributed to group II, is more likely associated with group IV as suggested by Tufnell (1984: 59), considering its back type (below, §IVB).

⁵⁹⁶ Loud 1948: Pl. 150: 106 = Tufnell 1973: Fig. 1: 31 displaying B2 head and e9 side (below, §IIIB).

§IIIA 3. Design class 3 – Egyptian signs and symbols

Designs comprising Egyptian signs and symbols are the most common on scarabs of the early Palestinian series. As noted above, it is the popularity and numerous variations of design class 3 in the Palestinians series, which provide the most clear-cut evidence for the large-scale production of Canaanite scarabs in the early series. Moreover, a re-evaluation of these variations, which takes into account evidence provided by the Egyptian series, best demonstrates some of the methodological difficulties of the Tufnell and Ward typology.

§IIIA 3a. Design class 3A - Monograms and varia

Two of the four subclasses of design class 3A: 3A3 and 3A4 display the most distinctive and prevalent Canaanite designs in the early Palestinian series, which best characterize early Canaanite scarabs. Design class 3A3, which includes miscellaneous designs not categorized under any of the classified variations of design class 3, is used here to illustrate distinctive patterns occurring on early Canaanite scarabs. The discussion below refers to the four subclasses of design class 3A, pointing out the differences between the Egyptian and the Palestinian series.

§IIIA 3a1. 3A1 – sign of union, *sm3-t3wy*

This distinctive Middle Kingdom design (above, §IA 3a1) is attested on a relatively small number of scarabs in the Palestinian series (Tufnell 1984: 117, Pl. 7). The early series include only four examples from Jericho (Pl. 50: 16-17; Kirkbride 1965: Fig. 282: 3, Fig. 286: 3), one from Tel Aviv Harbor (Pl. 50: 18), one from the courtyard cemetery at Tell el-`Ajjul (Pl. 50: 19), and one from Rishon Leziyyon (Pl. 50: 20). The form of the sign on the scarabs from Tell el-`Ajjul and Tel Aviv Harbor; depicting a three-stem papyrus plant surmounting the sign, is not attested on Middle Kingdom scarabs bearing the design. This argues for the Canaanite origin of both scarabs, which is supported by the scarabs' features (below, §IIIB). A Canaanite origin is also indicated for the Rishon Leziyyon example, which depicts the motif flanked above and below by the three-stem papyrus (see design class 1E) and enclosed in a rope border; neither combination is attested on Egyptian Middle Kingdom scarabs. The rope border is also attested on one of the Jericho examples bearing the design (Pl. 50: 16), arguing for its Canaanite origin. Another Jericho example depicts the design in combination with the royal title *nsu-bit* (Pl. 50: 17), which as demonstrated above (§IA 3b2, §IIA 3b2) is not known to occur on Egyptian scarabs of the Middle Kingdom or the Second Intermediate Period.

The two remaining examples from Jericho display the sign in combination with design class 6A (Kirkbride 1965: Fig. 282: 3, Fig. 286: 3), a combination attested also on late Middle Kingdom scarabs (Pl. 6: 13). The features of these scarabs support a late Middle Kingdom Egyptian origin. Another late Middle Kingdom example, displaying the design in symmetric opposition comes from Megiddo (Guy 1938: Pl. 105: 8), and an early Middle Kingdom heirloom scarab displaying the same symmetric design comes from Tell el-`Ajjul (Keel 1997: 139, No. 99, above, §IA 3a1).

The Canaanite imitations occurring in the early series attest to the adaptation of this Egyptian motif on Canaanite scarabs already in the initial phase of scarab production in Palestine. As in the case of design class 1E, the early Palestinian examples display closer similarity to variations of the design from Second Intermediate Period contexts in Egypt rather than late Middle Kingdom ones. The small horizontal lines depicted inside the out-curved papyrus plants forming part of the sign – the stylistic detail distinguishing Second Intermediate Period examples from those of the Middle Kingdom (above, §IIA 3a1) – are also attested on the early Canaanite examples noted above.

Tufnell's conclusion that the sign of union occurs on scarabs mainly at times of union between the Two Lands (1984: 117) is based mainly on her dating of the early examples from Jericho to the 12th Dynasty. The evidence presented in the previous chapters argues that this motif, which first occurs on early Middle Kingdom scarabs and ovoids, gains in popularity during the late Middle Kingdom, when most examples are attested (above, §IA 3a1). The motif becomes negligible in the Second Intermediate Period, but is imitated, though on a small scale, on Canaanite scarabs beginning already in the early series.

§IIIA 3a2. Design class 3A2 – *nbtj* motif

As noted above (§IA 3a2) Tufnell acknowledges the fact that the *nbtj* motif is hardly attested in the basic series included in her typology (Tufnell 1984: 117-18). The evidence presented in the previous chapters supports Tufnell's observation, showing that this distinctive early Middle Kingdom motif continues on a small scale into the late Middle Kingdom but does not continue into the Second Intermediate Period (above, §IIA 3a2). Of the Palestinian examples presented by Tufnell (1984: Pl. 7: 1300-1313) only one scarab from Tell el-`Ajjul (Tufnell 1984: Pl. 7: 1313) displays a late Middle Kingdom variation of the design. The features of this scarab, displaying Martin's back type 6 (Keel 1997: 347, no. 712), confirm its late Middle Kingdom Egyptian origin (above, §IB 2-4). The other examples presented by Tufnell as displaying this design do not in fact depict the *nbtj* motif. It is interesting to note

an early Middle Kingdom heirloom from Tell el-`Ajjul displaying the *nbty* motif on a Montet Jar-type ovoid (Keel 1997: 312-13, no. 621).⁵⁹⁷

§IIIA 3a3. Design class 3A3 – varia

As noted above, this subclass is used here to describe designs characteristic of the early series, which cannot be categorized under other subclasses of design class 3. The main distinction of these designs in the early series is the prevalence of misrendered signs imitating Egyptian hieroglyphs, which strongly argue for the Canaanite origin of the scarabs (Ben-Tor 1997: Figs. 2-3). The Canaanite origin of these scarabs is further indicated by their almost complete absence in Egypt. As demonstrated elsewhere (Ben-Tor 1997: 168-71) the pseudo-hieroglyphs occurring on these scarabs include the signs interpreted by Rowe as sun disk between two uraei, and sun disk (Ben-Tor 1997: 172, Fig. 3:1-4, 5-8),⁵⁹⁸ misrendered forms of *m3^ct* feathers (Ben-Tor 1997: 172, Fig. 3: 1, 5-8), and the stylized sign occurring also on late Middle Kingdom scarabs and usually read as *s3* (Ben-Tor 1997: 170, Fig. 2: 2, 4, 11, 15).⁵⁹⁹ Also common are falcons (Ben-Tor 1997: 170, Fig. 2: 1, 10),⁶⁰⁰ and the decorative element occasionally depicting a platform, which may represent one of the earliest Levantine-inspired motifs on Canaanite scarabs (Ben-Tor 1997: 181-85, Fig. 12). It is important to note that these signs occur also with designs categorized under other subclasses of design class 3 (see design classes 3A4, 3B1, 3B3, 3C, 3E5 below), which display the same characteristic features of early Canaanite scarabs (below, §IIIB).

Tufnell categorized many such examples under design class 3A3 (1984: Pls. 8-8b), though not exclusively from the early series. The early series yielded fourteen examples from Jericho (Pl. 50: 21-29, Pl. 51: 1-5), thirteen from Megiddo (Pl. 51: 6-18), four from Tel Aviv Harbor (Pl. 51: 19-22), fourteen from Rishon Leziyyon (Pl. 51: 23-36), one from Beth Shemesh (Pl. 51: 37), one from Ginnosar (Pl. 51: 38), and one from the courtyard cemetery at Tell el-`Ajjul (Pl. 51: 39). Examples displaying the same distinctive characteristics were found in contexts assigned to the late series, almost certainly constituting heirlooms; e.g., four scarabs from cistern 9024 at Hazor (Pl. 51: 40-43), three scarabs from Kabri (Pl. 51: 44-46), and five scarabs from Tell el-`Ajjul (Pl. 51: 47-51).

Additional examples were found at Tel Far`ah (N) (Pl. 51: 52), Gezer (Pl. 51: 53-54), Shechem (Pl. 51: 55-56), Beth Shemesh (Pl. 51: 57), Gibeon (Pl. 51: 58), and Lachish (Pl. 51: 59). Although not displaying a consistent design, the group presented above displays a discernible style manifested primarily in poorly executed imitations of a more or less consistent group of Egyptian hieroglyphs. Moreover, as noted above, these scarabs display characteristic features distinctive of early Canaanite scarabs (below, §IIIB).

As noted in the discussion of design class 1 (above), designs depicting a single scarab, usually in association with a sun disk, are categorized here under design class 3A3. Two such examples occur in the early Palestinian series (Pl. 51: 60-61), one of them displaying the design enclosed in a rope border (Pl. 51: 60), a pattern attested also in the Egyptian Second Intermediate Period series (Pl. 40: 14-16). None of the other examples in the Palestinian series, early or late, display a rope border (Tufnell 1984: Pl. 1).⁶⁰¹ The complete absence of this design in the known corpus of late Middle Kingdom scarabs, and its occurrence on two examples in the early Palestinian series suggest a likely Canaanite origin for the early Palestinian examples. Nevertheless, the number of scarabs displaying this design in Egypt and in Palestine is too small to establish the origin of most examples, as the features of the scarabs do not display distinctive characteristics of any of the known groups.⁶⁰²

§IIIA 3a4. 3A4 – Horus hawk with *ntr* and other signs

This design, depicting a falcon and a 90° angle as the main motif, is first attested in the early Palestinian series where its great popularity was observed and noted by Tufnell (1984: 118, and Pl. 9). Tufnell also notes the rare occurrence of the design in the late Palestinian series (1984: 118) and its complete absence at Kahun and Uronarti (1975: 71-72), which as demonstrated above (§IA 3a4) is also true for the entire late Middle Kingdom series. As noted above, Tufnell attributes this absence to a chronological difference placing the Palestinian examples bearing

⁵⁹⁷ Keel erroneously dates this example between the late 12th and 13th Dynasties. Tufnell categorizes it under design class 3A3 (1984: Pl. 8b: 1423).

⁵⁹⁸ Keel (2004: 83) interprets the former as the sun disk between two mountains, suggesting it represents the Egyptian word *3ht*.

⁵⁹⁹ Keel presents convincing arguments in favor of reading this stylized sign as *s3* (1995a: 168, §445). This applies, however, to Egyptian late Middle Kingdom scarabs but not necessarily to Canaanite scarabs; evidence for the Canaanite interpretation of the signs depicted on Middle Bronze Age scarabs or their understanding of their original meaning in Egypt is unfortunately not available.

⁶⁰⁰ See design class 3A4 below.

⁶⁰¹ An additional example to those presented by Tufnell was found at Lachish (Tufnell 1958: Pl. 30: 2).

⁶⁰² As correctly noted by Keel (1997: 108-109, no. 9), one of the Tell el-`Ajjul examples presented by Tufnell (1984: Pl. 1: 1028) cannot date earlier than the late New Kingdom.

the design in the early 12th Dynasty, earlier than the chronological scope of the Kahun and Uronarti corpus (1984: 86).

Considering the evidence presented above, the chronological difference between the late Middle Kingdom and early Palestinian series is in fact the opposite of that suggested by Tufnell and Ward, i.e., the latter directly following the former. Moreover, as demonstrated elsewhere (Ben-Tor 1997: 175-79), the absence of design class 3A4 at Kahun and Uronarti reflects primarily a regional difference, as the design is one of the most distinctive of early Canaanite scarabs. The signs comprising the main motif, described by Tufnell as "Horus hawk with *ntj*", are poorly executed and not always clear; the falcon is sometimes alternated by an owl, and the identification of the other sign is extremely problematic (Ben-Tor 1997: 175-79, Fig. 8).⁶⁰³ Moreover, the design is frequently associated with the same misrendered hieroglyphs comprising the designs categorized above under design class 3A3,⁶⁰⁴ and there is no consistency in the choice of signs associated with the main motif. The local production of these scarabs is further indicated by their distribution almost exclusively in Palestine,⁶⁰⁵ and by the scarabs' features, which display the most distinctive early Canaanite characteristics (Keel 2004: 89; below, §IIIB 1-3).

The early series include twelve examples from Jericho (PI. 52: 1-12), eleven from Megiddo (PI. 52: 13-23), three from Rishon Leziyyon (PI. 52: 24-26), one from Tel Aviv Harbor (PI. 52: 27), one from Beth Shemesh (PI. 52: 28), and five from Ain Samiya (PI. 52: 29-33).⁶⁰⁶ The Middle Bronze Age cemetery at Ain Samiya most probably included an early MBIIB phase, which is indicated also by five late Middle Kingdom private-name scarabs from the site (Giveon 1974: Figs. 1-3). A small number of examples displaying design class 3A4 were found in later contexts or unclear contexts at various sites. These include a scarab from group III at Jericho (PI. 52: 34), one from Tell-el Far`ah (N) (PI. 52: 35), two from Afula (PI. 52: 36-37), one from Acco (PI. 52: 38), and two from Gezer (PI. 52: 39-40). Tufnell commented on the small number of examples from Tell el-`Ajjul⁶⁰⁷ and groups IV-V at Jericho,⁶⁰⁸ correctly attributing it to a chronological difference (1984: 118). It is important to note that the late MBIIB cemeteries at Tell el-Far`ah (S) and Lachish did not yield a single example. As observed above, scarabs bearing the early Canaanite variations of design class 3A4 are completely absent in Egypt even in the eastern Delta, where only late Second Intermediate Period Egyptian imitations of this enigmatic design are attested (above, §IIA 3a4).

§IIIA 3b. Design class 3B – Symmetric patterns

As noted above (§IA 3b), design class 3B is divided by Tufnell into seven subclasses consisting of particular pairs of hieroglyphs selected either for association with royal-name scarabs or for being the most prevalent (Tufnell 1975: 72, 1984: 118-21). Considering the popularity of design class 3B in the late Middle Kingdom series and the Palestinian series, Tufnell's subclasses provide invaluable evidence for regional and chronological differences.

§IIIA 3b1. Design class 3B1 – Cobras

Tufnell divides design class 3B1 into four subtypes according to the position of the symmetric cobras: a – addorsed, b – addorsed and linked, c – confronted, d – addorsed, linked, and crowned (1984: 118). As demonstrated above (§IA 3b1), all variations of cobra presentations are extremely rare in the late Middle Kingdom series, though both confronted and addorsed cobras are attested. It was also demonstrated above (§IIA 3b1) that the Second Intermediate Period series yielded only subclass 3B1c, the latter occurring almost exclusively on contemporary Egyptian scarabs. The Palestinian series, which constitute the primary source material for Tufnell's typology, include all subtypes of paired cobras (Tufnell 1984: 118, Pls. 9- 10). Tufnell notes a chronological difference in the popularity of addorsed and confronted cobras, based on the distribution of these types in the early and late Palestinian series. The popularity of confronted cobras on Second Intermediate Period Egyptian scarabs argues also for a regional variation. On the other hand, no chronological or geographical significance is indicated for Tufnell's sub division of designs depicting addorsed cobras, which are therefore discussed here under one category.

⁶⁰³ Keel (2004: 89) proposes to read the design as a Canaanite imitation of the Egyptian writing of the name of the goddess Hathor, based on examples such as Keel 2004: 90, Figs. 64, 66-67.

⁶⁰⁴ See e.g. Tufnell 1984: Pl. 9: 1443, 1447, 1450, 1452, 1461.

⁶⁰⁵ The only examples found outside Palestine come from Tomb 66 at Ruweise on the Lebanese coast (Tufnell 1984: Pl. 9: 1436, 1437). See also Ben-Tor 2003: 242-43, and Fig. 3.

⁶⁰⁶ From illegal excavations at the site.

⁶⁰⁷ Only six out of more than one thousand Middle Bronze Age scarabs at Tell el-`Ajjul display the early variations of design class 3A4 (Keel 1997: 155-495, nos. 151, 582, 638, 820, 984, 1147). For the Egyptian Second Intermediate Period variations of the design at the site see above (§IIA 3a4).

⁶⁰⁸ Group IV revealed two examples (Kirkbride 1965: Fig. 295: 22, Fig. 296: 11), while group V did not reveal a single example. The two scarabs from group V categorized by Tufnell under design class 3A4 (1984: Pl. 9: 1440, 1444) do not depict this design.

§IIIA 3b1a. Design class 3B1a – cobras addorsed, 3B1b – addorsed and linked, 3B1d – addorsed linked and crowned

Tufnell (1984: 118) observed the popularity of addorsed cobras, linked and unlinked, as well as crowned, in the early Palestinian series and their less common occurrence in the late series. Although rarely attested in the late Middle Kingdom series (Pl. 8: 1, 5-7, 9-10), addorsed cobras occurring on Canaanite scarabs were most probably inspired by late Middle Kingdom prototypes. Tufnell's three subtypes (a, b, d) occur in similar contexts in the early series, yet they display a ratio of about 3:1 between types b and d – by far the most popular – and type a. The early series yielded eleven examples from Jericho (Pl. 52: 41-51),⁶⁰⁹ eight from Megiddo (Pl. 52: 52-59),⁶¹⁰ three from Rishon Leziyyon (Pl. 53: 1-3),⁶¹¹ one from Ginnosar (Pl. 53: 4),⁶¹² and one example displaying early characteristics from Ain Samiya (Pl. 53: 5).⁶¹³ The complete absence of the design in Tel Aviv Harbor can only be explained as an accident of survival. The design is frequently associated with pseudo-hieroglyphs of the type categorized under design class 3A3⁶¹⁴ or with design class 3A4,⁶¹⁵ and most examples display distinctive features of early Canaanite scarabs (below, §IIIB). As in the case of other early designs, a small number of examples displaying design 3B1 with distinctive early characteristics come from later contexts. These include one example from Megiddo (Pl. 53: 6),⁶¹⁶ three from Gezer (Pl. 53: 7-9),⁶¹⁷ one from Gibeon (Pl. 53: 10),⁶¹⁸ and three from Tell el-'Ajjul (Pl. 53: 11-13).⁶¹⁹

Some of the examples listed above display a winged sun disk at the center of the base surface dividing it in half (Pl. 52: 42, 46, 48, Pl. 53: 12). This arrangement is also found with other design classes on early Canaanite scarabs (below).⁶²⁰ The winged sun disk is extremely rare on late Middle Kingdom scarabs, where it is depicted in a completely different form (Ben-Tor 2004c: 34-35, Fig. 4).⁶²¹ Its most common form on early Canaanite scarabs, which is also attested on Second Intermediate Period Egyptian scarabs (above, §IIA 3b1a), shows inspiration from Syrian cylinder seals (Teissier 1996: 95-98, 158). Some examples depicting the winged sun disk on early Canaanite scarabs may have been inspired by late Middle Kingdom prototypes. This is indicated by the form of the motif, which resembles that occurring on late Middle Kingdom scarabs, and by its depiction at the top of the base surface usually in association with symmetric patterns, as in the case of the late Middle Kingdom examples.⁶²²

§IIIA 3b1b. Design class 3B1c – Cobras confronted

Tufnell correctly noted the later trend of design class 3B1c in the Palestinian series in comparison with 3B1 a, b, and d (1984: 118), yet, the design does occur in the early series on examples displaying distinctive early Canaanite characteristics (below). Moreover, like the addorsed cobras, confronted cobras are first attested on isolated late Middle Kingdom scarabs (Pl. 8: 2-4, 8), which most probably constitute the prototypes for the early Canaanite examples. The number of scarabs displaying design class 3B1c in the early Palestinian series is notably smaller than that displaying types a, b, and d of the design. Only three examples were found at Jericho (Pl. 53: 14-16), two at Megiddo (Pl. 53: 17-18),⁶²³ and one at Tel Aviv Harbor (Pl. 53: 19).⁶²⁴ Isolated examples displaying early Canaan-

⁶⁰⁹ Displaying respectively: type b, type a, type b, type d, type b, type b, type d, type d, type d, type d, type a. The scarab assigned to group II from tomb J 54 (Kirkbride 1965: Fig. 283: 10) has a duplicate in group IV (Kirkbride 1965: Fig. 297: 13), which strongly argues for a confusion in the records (see Tufnell 1984: 63) and make the find spot of this scarab uncertain. See also design class 2A above.

⁶¹⁰ Displaying respectively: type b, type b, type d, type b, type a, type b, type d, type d. An example showing type d from tomb 24 (Guy 1938: Pl. 106: 5) displays a design and features suggesting a late Middle Kingdom origin.

⁶¹¹ Displaying respectively: type d, type b in combination with design class 3E5, type b.

⁶¹² Displaying type d.

⁶¹³ Displaying types a and b.

⁶¹⁴ E.g. Tufnell 1984: Pl. 9: 1471, 1479, 1487, 1489.

⁶¹⁵ E.g. Tufnell 1984: Pl. 9: 1472, 1478.

⁶¹⁶ Displaying type b.

⁶¹⁷ Displaying respectively: type d, type d, type a.

⁶¹⁸ Displaying type b.

⁶¹⁹ Displaying respectively: type b, type b, type d. The design and feature of the scarab presented in Keel 1997: 481, no. 1103 (type b) argue for a most likely late Middle Kingdom origin (see also design class 3B3a below).

⁶²⁰ E.g. Megiddo (Tufnell 1973: Fig. 1: 43); Tel Aviv Harbor cemetery (Tufnell 1984: Fig. 16: 4); Hazor (Tufnell 1984: Fig. 17: 25); Tell el-'Ajjul (Keel 1997: 311, no. 611).

⁶²¹ See examples from Fadrus (Säve-Söderbergh and Troy 1991: Pl. 15: 185/354: 11), Semna (Dunham and Janssen 1960: Pl. 123: 2), and Ukma (Vila 1987: Pls. 5-6: 131/12).

⁶²² Compare early Canaanite examples (Kirkbride 1965: Fig. 282: 1, Fig. 283: 12; Tufnell 1973: Figs. 1-3: 9, 66, 75, 115) with Egyptian late Middle Kingdom examples (Dunham and Janssen 1960: Pl. 123: 2; Vila 1987: Pls. 5-6: 131/12; Säve-Söderbergh and Troy 1991: Pl. 15: 185/354: 11).

⁶²³ An additional example (Guy 1938: Pl. 105: 13) displays characteristics suggesting a late Middle Kingdom origin.

ite characteristics were found in later contexts, among them one example from cistern 9024 at Hazor (PI. 53: 20), one from group III at Jericho (PI. 53: 21),⁶²⁵ and one from Tell el-`Ajjul (PI. 53: 22).

The early Canaanite scarabs noted above show the confronted cobras in symmetric opposition usually at the top of the base surface and flanking a central sign. It is interesting to note that the patterns depicting design 3B1c in the Second Intermediate Period Egyptian series first occur on these early Canaanite scarabs: 1. Columns of hieroglyphs comprising paired signs flanking a central sign (PI. 53: 14, 15, 19). 2. Two groups of paired signs flanking a central sign depicted above and below a winged sun disk dividing the base surface (PI. 53: 17, 20). 3. Symmetric hieroglyphs arranged longitudinally (PI. 53: 16). Moreover, the form of the winged sun disk dividing the base surface on the Egyptian Second Intermediate Period examples is identical to that occurring on the early Canaanite scarabs. It is therefore reasonable to consider the early Canaanite examples of design class 3B1c as likely prototypes for the patterns occurring on Second Intermediate Period Egyptian scarabs (above, §IIA 3b1a). The two groups display, however, different characteristics, which make the distinction between them relatively easy. The early Canaanite scarabs bearing the design display typical early Canaanite misrendered signs and pseudo hieroglyphs (PI. 53: 15, 21), which are absent from Egyptian Second Intermediate Period scarabs. Moreover, the early Canaanite examples do not display the sign *r*, which occurs on a significant number of Egyptian Second Intermediate Period examples (above, §IIA 3b1a). Finally, the features of the early Canaanite scarabs bearing the design differ from those occurring on Second Intermediate Period Egyptian examples (below, §IIIB). The popularity of the latter at Tell el-`Ajjul (Tufnell 1984: 118) is discussed in association with the late series.

§IIIA 3b2. Design class 3B2 – King of Upper and Lower Egypt (*nsw-bit*)

As demonstrated above (§IA 3b2), the royal title *nsw-bit* occurs on early Middle Kingdom scarabs (Ward 1978a: Pl. 12: 301-302), but is not attested on late Middle Kingdom design or royal-name scarabs. It was also shown above (§IIA 3b2) that there is no evidence to indicate its occurrence on Egyptian scarabs of the Second Intermediate Period. The *nsw-bit* motif is, however, well attested in the Palestinian series on scarabs displaying Canaanite characteristics, beginning already in the early series (Tufnell 1984: 118-19, Pl. 11).

The early series include only five examples from Jericho (PI. 53: 23-27). The complete absence of the motif in the early phases at Megiddo and Tel Aviv Harbor argues for its lesser popularity in the early phases of scarab production in Palestine, which increased in the late series (below). Additional early examples should, however, be considered in the case of two close parallels to one of the Jericho examples (PI. 53: 27), one from Kabri (PI. 53: 28), and one from Aphek (PI. 53: 29), displaying like the Jericho scarab a misrendered form of design class 3B7 (below). It has been suggested (above, §IA 3b2) that the complete absence of the *nsw-bit* motif on late Middle Kingdom scarabs argues for media other than scarabs as the source of inspiration for its occurrence on Canaanite scarabs.

§IIIA 3b3. Design class 3B3 – Red crowns

Tufnell's five subtypes of design class 3B3 are based primarily, though not exclusively (below), on the Palestinian series (Tufnell 1984: 119-20). As demonstrated above (§IA 3b3), the late Middle Kingdom series display four of these five subtypes, and the Second Intermediate Period Egyptian series display three, two of which include examples manufactured in Egypt (above, §IIA 3b3). Thus, a comparison of the popularity and distribution of subtypes of design class 3B3 in the Palestinian and Egyptian series is important for distinguishing chronological and regional variations.

Type a – red crowns addorsed on *nb*

Addorsed red crowns on *nb* occur in the Palestinian series in symmetric patterns that leave little doubt as to their late Middle Kingdom prototypes (above, §IA 3b3). Yet, in contrast to the popularity of the design on late Middle Kingdom scarabs, the Palestinian series include only a very small number of examples, most of them in the early series (Tufnell 1984: 119). These include two examples from Jericho (PI. 53: 30-31),⁶²⁶ one from Megiddo (PI. 53: 32), one from Azor (PI. 53: 33), and one from Tell el-Far`ah (N) (PI. 53: 34). Examples displaying Egyptian late Middle Kingdom characteristics were found at Tell el-Far`ah (N) (Amiet et al. 1996: Pl. 7: 38), Tell el-`Ajjul (Keel 1997: 481, no. 1103),⁶²⁷ and Jericho (Kirkbride 1965: Fig. 293: 5). The late Middle Kingdom association of the design with the sign of union (PI. 8: 19, 28-30) is not attested in the Palestinian series. Moreover, the rare occurrence of this design in the Palestinian series and its complete absence in the Egyptian Second Intermediate Period series (above, §IIA 3b3) argue that unlike some subtypes of design class 3B3 (below), type a was not popular on Second

⁶²⁴ The design on the scarab presented in Tufnell 1984: 55, Fig. 16: 13, depicting linked confronted cobras is unique.

⁶²⁵ Displaying also design class 3E5 (below).

⁶²⁶ Kirkbride 1965: Fig. 282: 4, 8, Fig. 293: 5.

⁶²⁷ Displaying also design class 3B1b (above).

Intermediate Period scarabs. The small group of Canaanite examples indicates a small-scale adaptation of the design on Canaanite scarabs, mainly in the early phase of scarab production in Palestine.

Type b – red crowns addorsed

As noted above (§IA 3b3), type b depicting addorsed crowns is less common than type a on late Middle Kingdom scarabs, while it is the most common type of design class 3B3 in the Second Intermediate Period Egyptian series. The design is also attested on a much larger number of scarabs in the Palestinian series compared with type a, many of them from the early series (Tufnell 1984: 119): ten examples from Jericho (Pl. 53: 35-44), nine from Megiddo (Pl. 54: 1-9),⁶²⁸ four from Tel Aviv Harbor (Pl. 54: 10-13), and one from Azor (Pl. 54: 14). More examples displaying early characteristics were found at other sites: one in cistern 9024 at Hazor (Pl. 54: 15), one at Kabri (Pl. 54: 16), one at Ain Samiya (Pl. 54: 17), one at Gibeon (Pl. 54: 18), and one at Lachish (Pl. 54: 19). All the scarabs listed above display distinctive characteristics of early Canaanite scarabs, such as misrendered signs, design classes 3A4 and 3C, and early features (below, §IIIB). The Second Intermediate Period scarabs from Egypt and Palestine displaying design class 3B3b, both Egyptian and Canaanite, usually display the paired crowns at the bottom of designs comprising paired signs flanking central signs, or flanking a central motif in longitudinal setting. The late Middle Kingdom examples display it also at the top of designs comprising paired signs (Pl. 8: 32-33, 35-37) – a pattern that is not attested on Second Intermediate Period scarabs, Egyptian or Canaanite.

Type c – red crowns confronted

As noted above (§IIA 3b3), this quite common late Middle Kingdom design is completely absent in the Second Intermediate Period Egyptian series, and is extremely rare in the Palestinian series (Tufnell 1984: 119, Pl. 12). Isolated examples found in the Palestinian series display characteristics that strongly argue for a late Middle Kingdom origin.⁶²⁹ The only exceptions are a scarab from Tell el-`Ajjul (Keel 1997: 297, no. 571) and a scarab from Garstang's excavations at Jericho (Rowe 1936, no. 111), which show characteristics suggesting a Canaanite rather than Egyptian origin. Both these scarabs display the confronted crowns with the gold sign in longitudinal setting (design class 3B6), the most common combination of the design on late Middle Kingdom scarabs. Yet, they display details that are not known to occur on late Middle Kingdom scarabs, mainly in the choice of signs flanking the main motif. The Tell el-`Ajjul scarab not only displays two different signs, an occurrence unattested on late Middle Kingdom scarabs, the signs themselves – a *nb* sign and a reed – are not found with design class 3B6 on late Middle Kingdom scarabs. Moreover, the reed is displayed upside down. The Jericho scarab displays two *nb* signs flanking the motif, which, as noted above, are not found with the design on late Middle Kingdom scarabs. These details, which suggest a Canaanite rather than Egyptian origin, argue for occasional Canaanite imitations of the design.

The early series include only one example from Rishon Leziyyon (Pl. 54: 20) displaying a unique form of the design; the confronted crowns surmount a shrine-like motif (below, design class 3E5), which encloses the hieroglyphs comprising the throne name of Senwosret I. The Canaanite origin of this example is indicated as argued elsewhere (Ben-Tor 1997: 179-81) by the shrine-like design (see design class 3E5 below), and by the fact that it encloses a throne name.

Type d – red crowns addorsed, "L shaped"

This type, depicting the red crown in a schematic form resembling a capital "L", is not attested on Middle Kingdom scarabs (above, §IA 3b3), and is extremely rare in the Second Intermediate Period Egyptian series (above, §IIA 3b3). As argued above, the occurrence of L-shaped crowns is restricted to Canaanite scarabs, reflecting poor imitations of this Egyptian hieroglyph by Canaanite artisans. Tufnell notes the occurrence of L-shaped red crowns in symmetric patterns depicting paired crowns, and non-symmetric patterns depicting single crowns (1984: 119).⁶³⁰ The number of examples is, however, relatively small, indicating that designs depicting more accurate forms of the red crown were far more popular than those depicting this debased form, especially in symmetric patterns depicting paired crowns. Scarabs displaying L-shaped red crowns occur in the early and late Palestinian series, the early series displaying almost exclusively patterns depicting a single crown. These include three examples from Jericho (Pl. 54: 21-23), one from Megiddo (Pl. 54: 24), one from Tel Aviv Harbor (Pl. 54: 25), and two from Rishon Leziyyon (Pl. 54: 26-27). Two examples displaying distinctive early-series characteristics from Tell el-`Ajjul (Pl. 54: 28-29)⁶³¹ attest to the occurrence of patterns depicting paired L-shaped crowns on early Canaanite scarabs.

⁶²⁸ An additional example from the site (Tufnell 1973: Fig. 2: 67) displays characteristics suggesting a late Middle Kingdom Egyptian origin.

⁶²⁹ See Marcus and Artzy 1995: 137, Fig. 1 from Tel Nami; Macalister 1912: Pl. 206: 15 from Gezer; Pritchard 1963: Fig. 71: 10 from Gibeon.

⁶³⁰ For the former see Tufnell 1984: Pl. 12: 1570-1574. For the latter see Tufnell 1984: Pls. 8-8b: 1355, 1373, 1399.

⁶³¹ Both display distinctive early Canaanite features (below, §IIIB), misrendered signs and design class 3A4.

Type e – red crowns *tête bêche*

This design, which is first attested on isolated late Middle Kingdom examples (above, §IA 3b3), gains in popularity in the Second Intermediate Period Egyptian series (above, §IIA 3b3) and in the Palestinian series, where it is found already in the early series (Tufnell 1984: 120, Pl. 13). The early series include two examples from Jericho (Pl. 54: 30-31), one from Megiddo (Pl. 54: 32), and one from Tel Aviv Harbor (Pl. 54: 33), all displaying distinctive early Canaanite features (below, §IIIB). All examples bearing the design, those of the late Middle Kingdom and Second Intermediate Period, Egyptian as well as Canaanite, display the paired crowns flanking a central motif in longitudinal setting. As demonstrated above, a significant number of the Second Intermediate Period examples display the motif flanking variations of design class 3C (above, §IIA 3b3). The origin of many examples remains inconclusive, but the occurrence of one such example in the early series at Jericho (Pl. 54: 31)⁶³² argues for the Canaanite origin of this combination, though the possibility of Egyptian Second Intermediate Period imitations should not be ruled out.

Summing up design class 3B3 in the early Palestinian series, it is interesting to note a similarity in the popularity of particular subtypes with the Egyptian Second Intermediate Period series, which is manifested in the occurrence or absence of particular types. Moreover, the differences attested between the late Middle Kingdom and Second Intermediate Period series are in most cases also attested between the late Middle Kingdom and the early Palestinian series.

§IIIA 3b4. Design class 3B4 – Horus eyes (*wḏ3t*)

This distinctive late Middle Kingdom design (above, §IA 3b4) is well attested in the Palestinian series (Tufnell 1984: 120, Pl. 13), yet, although clearly inspired by late Middle Kingdom prototypes, the design is more common in the late series. The early series include only three scarabs from Jericho (Pl. 54: 34-36), and one from Megiddo (Pl. 54: 37), which display distinctive Canaanite characteristics. The designs and features of two additional examples from Megiddo (Tufnell 1973: Fig. 2: 67; Guy 1938: Pl. 105: 13) and two from Jericho (Kirkbride 1965: Fig. 286: 8, 16) suggest a late Middle Kingdom origin. As in the case of late Middle Kingdom scarabs bearing the design, the early Canaanite examples depict it mainly in symmetric patterns of paired signs. Yet, the combination of the paired eyes with design classes 3B6 (Pl. 54: 36), 3C (Pl. 54: 34), and 7B1 (Pl. 54: 35) is not attested on late Middle Kingdom scarabs, indicating local variations. The late Middle Kingdom combination of the design with spirals (Pl. 9: 1, 4, 23, 35, 40), which is absent in the Second Intermediate Period series, is also absent in the Palestinian series. Moreover, the late Middle Kingdom depiction of the eyes as a pair at the top of the plinth, which is missing in the Second Intermediate Period series, is also absent in the early Palestinian series. The latter pattern is attested, however, in the late Palestinian series⁶³³ arguing that its absence in the early series and the Second Intermediate Period Egyptian series may reflect accident of survival, especially considering the relatively small number of surviving scarabs in both groups.

§IIIA 3b5. Design class 3B5 – Sedge plants (*swt*)

Tufnell notes the greater popularity of this design in the late series in comparison with the early series (1984: 120, Pl. 14), which yielded only one example from Jericho (Pl. 55: 1), and three from Megiddo (Pl. 55: 2-4). As in the case of design class 3B4 the distribution of this design in the Palestinian series is somewhat intriguing considering its clear inspiration from late Middle Kingdom prototypes, and we would expect it to be more prevalent in the early series. The evidence, however, suggests that this is not necessarily the case, as some Middle Kingdom designs occur in the early series in small numbers, gaining in popularity in the late series (see design classes 2 and 3B4 above, and 3B6 below).

Two of the examples in the early series display the design in association with design class 3E (Pl. 55: 1-2), which support their Canaanite origin (below, §IIIA 3e), especially the Jericho example showing the "shrine" variation of design class 3E (3E5 below), and design class 3C (below). One of the Megiddo examples (Pl. 55: 4) displays the *swt* plants addorsed within a combination of designs 3B3, 3B4, and 3B6. This scarab also displays distinctive early Canaanite features (below, §IIIB). The early examples listed above depict the *swt* plants in the "casual" simple form, which is also attested in the Second Intermediate Period series and differs from the "formal" form attested on late Middle Kingdom scarabs (above, §IA 3b5). The association of the *swt* plants with design class 3E

⁶³² Kirkbride 1965: Fig. 293: 7.

⁶³³ See e.g. Keel 1997: 295-483, nos. 564, 800, 1104 from Tell el-ʿAjjul.

occurs only rarely in the late series,⁶³⁴ which display close variations to those attested in the Second Intermediate Period Egyptian series (below, §IVA 3b5).

§IIIA 3b6. Design class 3B6 – Gold sign (*nbw*) in longitudinal setting

Like design classes 3B4 and 3B5, this distinctive late Middle Kingdom design is more common in the late Palestinian series (Tufnell 1984: 120, Pl. 15), the early series including only five examples from Jericho (Pl. 55: 5-9), and four from Megiddo (Pl. 55: 10-13). The basic pattern of the design on these scarabs is identical to that occurring on late Middle Kingdom examples, indicating the latter as their source of inspiration.⁶³⁵ Yet, the Canaanite origin of the early Palestinian examples is indicated by the motifs and designs associated with the gold sign, such as one-pair oblong scroll border (design class 7B1) (Pl. 55: 6-7)⁶³⁶ or misrendered signs (Pl. 55: 10, 12-13), which are not attested in the late Middle Kingdom corpus. The Canaanite origin of these scarabs is also indicated in some cases by the scarab's features (below, §IIIB). As argued above (§IIA 3b6) a Canaanite origin is indicated for most examples bearing design class 3B6 from Second Intermediate Period contexts in Egypt and Nubia, which show close similarity to those found in the late Palestinian series (below, §IVA 3b6).

§IIIA 3b7. Design class 3B7 – Forepart of lion (*ḥ3t*)

The almost complete absence of design class 3B7 in the Palestinian series was noted by Tufnell (1984: 120-21), who presents only two examples from Jericho and one from Tell el-`Ajjul (Tufnell 1984: Pl. 15: 1691-1693).⁶³⁷ As demonstrated above (§IIA 3b7), examples depicting the design in the Second Intermediate Period Egyptian/Nubian series are exclusively of late Middle Kingdom origin, and this is also the case with most examples found in the Palestinian series. Three such examples come from the early series: one from Megiddo (Tufnell 1973: Fig. 2: 67),⁶³⁸ and two from Jericho (Kirkbride 1965: Fig. 286: 16, Fig. 293: 5). The design is attested, however, on a scarab from Rishon Leziyyon,⁶³⁹ which displays early Canaanite features (below, §IIIB) and depicts the design in association with design class 3B8 (below), indicating the adaptation, albeit on a small scale, of design class 3B7 on Canaanite scarabs. Moreover, as noted above, the design is attested on a handful of Canaanite scarabs displaying the lion foreparts in a misrendered form at the bottom field of symmetric patterns, usually in association with the *nsw bit* motif (Pl. 55: 14-16). As argued above (design class 3B2) the early context of the Jericho example suggests a similar date for its two parallels. The almost complete absence of the design in the Palestinian series and in the Second Intermediate Period Egyptian/Nubian series argues that this popular late Middle Kingdom design hardly continued into the Second Intermediate Period except for isolated early Canaanite imitations.

§IIIA 3b8. Design 3B8 - Group of three signs comprising the name of Ptah

The Palestinian series include a particular group of scarabs displaying the three hieroglyphs comprising the name of the god Ptah (Keel 2002: 197-200). This group, which was not recognized by Tufnell, was first distinguished by Keel who categorized it under design class 11C – names of gods, based on his assumption that the signs stand for the name of the god Ptah on Canaanite scarabs (1995a: 241-42, § 641). It is argued below that this assumption is not supported by evidence. As the three signs are incorporated in symmetric or other patterns like the signs comprising design classes 3A4 and 3B2 (above), the group is categorized here under design class 3B as 3B8. Twenty examples of this type were recently presented by Keel (2002: Figs. 2-21), nine of them from the Palestinian excavated series,⁶⁴⁰ the early series yielding only one example from Jericho (Pl. 55: 17) and one example from Rishon

⁶³⁴ E.g. Keel 1997: 349-415, nos. 722, 824, 911 from Tell el-`Ajjul, nos. 824 and 911 displaying the design in combination with design class 3E5, which argues for an early date (below, §IIIA 3e2).

⁶³⁵ A late Middle Kingdom import was found at Tell el-`Ajjul (Keel 1997: 229, no. 375).

⁶³⁶ It is interesting to note an example from Uronarti displaying a one-pair oblong scroll border (design class 7B1) enclosing the gold sign in vertical setting (Tufnell 1975: Fig. 9: 396), the customary depiction of this scroll border on late Middle Kingdom scarabs (above, §IIA 7b1). This example supports the late Middle Kingdom source of inspiration for the early Canaanite examples bearing design class 6B6.

⁶³⁷ Tufnell also presents two examples from Tomb 66 at Ruweise (1984: Pl. 15: 1689-1690), which do not belong in the Palestinian series (Ben-Tor 2003: 242-43). For the late Middle Kingdom Egyptian origin of most scarabs from Tomb 66, including these two examples, see Ben-Tor 2003: 242-43, and Fig. 3.

⁶³⁸ Tufnell 1973: Fig. 2: 67. The scarab displays the typical 13th Dynasty back type – Martin's back type 6 (Loud 1948: Pl. 155: 70).

⁶³⁹ Field no. A2731-7374. This scarab was found during the 1997-1998 seasons and will be published elsewhere.

⁶⁴⁰ Keel 2002: Figs. 2-4, 6, 13, 16, 18-19, 21. One example was found at Tell el-Yehudiyeh (Keel 2002: Fig. 5), and ten come from museum collections with no record of provenance (Keel 2002: Figs. 7-12, 14-15, 17, 20).

Leziyyon.⁶⁴¹ The design is attested in Egypt only on three scarabs from the eastern Delta – from Tell el-Yehudiyeh (Griffith 1890: Pl. 10: 1), Tell el-Maskhuta (Field no. M81 453 = **Appendix Pl. 2: 6**), and Tell el-Dab`a (Mlinar 2004: Fig. 12: 5), and on a single example from Saï island (Gratien 1986: Fig. 286: Ib). The eastern Delta examples display features that argue for their origin in Palestine, however, the example from Saï Island displays features of Mlinar's Type III, which argue for the origin of the design in the early workshop at Tell el-Dab`a. It should be noted, however, that no other example displaying these features is known.

The Canaanite origin of this group is indicated primarily by its distribution in Palestine compared with Egypt, and by the frequent occurrence of misrendered signs (see Keel 2002: 198) including the form of one of the three signs – the *t*, which is sometimes depicted upside down as a *nb* (Keel 2002: Figs. 2, 3, 7, 8, 10, 11, 19, 21). It is also indicated by the combination of the three signs with distinctive Canaanite designs, such as 3C (Keel 2002: Fig. 11), 10A (Keel 2002: Fig. 21), and 10B (Keel 2002: Fig. 20). The Rishon Leziyyon example depicts the signs enclosed in a square frame similar to those enclosing occasionally design class 3A4.⁶⁴² The three signs are incorporated into designs that do not suggest association with the god Ptah, but argue for the ignorance of the original meaning of these signs by the artisans who produced these scarabs. This is further indicated by one of the example presented by Keel depicting only two of the three signs (Keel 2002: Fig. 12). The designs associated with the signs suggest their use in the same manner as other hieroglyphs depicted in symmetric patterns on Canaanite scarabs, which occasionally include more than a single sign as in the case of design classes 3A4 and 3B2 (above). There is no evidence to suggest knowledge of the original meaning of any of these combinations of signs on Canaanite scarabs.

Most examples in the Palestinian series come from the late series (below). Yet, the example bearing the design from Saï island (Gratien 1986: Fig. 286: Ib) indicates its initial occurrence in the early workshop at Tell el-Dab`a (above, §IIb 4c2, §IIb 5c). Moreover, the Rishon Leziyyon example displays early Canaanite features confirming its early MBIIB date (below, §IIIB). The early example from group II at Jericho displays design class 7B3, and side d13/d14, which are shared by other examples (Keel 2002: Figs. 3-5, 7-9), implying an early MBIIB date for at least some of them. Keel's dating of the group to the 13th Dynasty (2002: 199-200) is highly unlikely considering the Canaanite origin of the Palestinian examples, which indicates a post Middle Kingdom date (above, introduction to chapter III).

Summing up design class 3B in the early Palestinian series, it can be argued that most late Middle Kingdom symmetric designs comprising Egyptian signs and symbols were imitated on early Canaanite scarabs. It can also be argued that the early Canaanite scarabs display in the case of most design classes local variations and developments that are not attested on the Egyptian prototypes, including new subclasses (e.g. 3B3d, 3B8). In some cases late Middle Kingdom designs (e.g. design classes 3B4, 3B5, 3B6), which are first imitated on early Canaanite scarabs gain in popularity in the late series (below).

§IIIA 3c. Design class 3C – Formulae

The Canaanite origin of design class 3C is indicated, as noted above (§IIA 3c), by the misrendered signs and pseudohieroglyphs comprising the formula on many examples (Ben-Tor 1997: 171-75). It is also indicated by the number of examples and their distribution in the Palestinian series compared with the Egyptian/Nubian series, and by the occurrence of the design in Palestine earlier than in Egypt (above, §IIA 3c). Although more common in the late series (Tufnell 1984: 121, Pl. 16; below, §IVA 3c), design class 3C is well represented in the early series; twenty-one examples come from Jericho (**Pl. 55: 18-34, Pl. 56: 1-4**), thirteen from Megiddo (**Pl. 56: 5-17**), seven from Tel Aviv Harbor (**Pl. 56: 18-24**), seven from Rishon Leziyyon (**Pl. 56: 25-31**), one from Ginnosar (**Pl. 56: 32**), and two from Azor (**Pl. 56: 33-34**). Examples displaying early characteristics from later contexts include two scarabs from Hazor cistern 9024 (**Pl. 56: 35-36**), three from group III at Jericho (**Pl. 56: 37-39**), one from Megiddo (**Pl. 56: 40**), one from Gezer (**Pl. 56: 41**), one from Lachish (**Pl. 56: 42**), and five from Tell el-`Ajjul (**Pl. 56: 43-47**).

These examples display the formula in association with various motifs and designs; most frequently with panel designs (design class 3E) (**Pl. 55: 19, 24, 26, 28-30, Pl. 56: 8, 14, 17, 20, 24, 30, 34-35, 38-40, 45-47**), between linked uraei (**Pl. 55: 20, 22, 31, 34, Pl. 56: 11, 26, 30, 37, 41-43**) or enclosed in a cartouche (**Pl. 55: 18, 32, Pl. 56: 1, 4, 12, 16, 18-19, 27, 29, 33**). The design is also attested in the early series next to a human figure (**Pl. 55: 21, Pl. 56: 23**) probably imitating a type of late Middle Kingdom private-name scarab as convincingly argued by Keel (1994: 213-20; 1995a: 206; see also Ben-Tor 1997: 181-84, and design class 10A below). It is depicted next to a falcon or uraeus (**Pl. 55: 22, Pl. 56: 6, 13, 16, 22, 32**), between addorsed red crowns (**Pl. 55: 27, Pl. 56: 3, 10, 19, 33, 44**) as a central motif surmounted by a three stem papyrus or flanked by the papyrus above and below (**Pl. 56:**

⁶⁴¹ Field no. A2731-7374, depicting the design in association with design classes 3B7 (above) and 6A (below). The scarab was found during the 1997-1998 seasons and will be published elsewhere.

⁶⁴² See e.g. Keel 1997: 383, no. 820 from Tell el-`Ajjul.

7, 21), enclosed in a scroll border (Pl. 55: 23, 32, Pl. 56: 12, 15, 25, 28-29), or flanking a central motif (Pl. 55: 25, 30, 33, Pl. 56: 4, 10, 11). It is also attested as a single motif covering the entire base surface (Pl. 56: 5, 31).

The Canaanite origin of design class 3C is now largely accepted (Keel 1995a: 176; Ben-Tor 1997: 171-75; Richards 2001). Yet, the apparent inspiration of Egyptian hieroglyphs in all variations of the design (see also Tufnell 1984: 121) argues for a likely Egyptian prototype for this enigmatic formula. As argued above (§IA 3c) establishing a possible Egyptian prototype for this formula is still problematic, with the possible exception of the small *rdi-r^c* type scarabs, which probably inspired some variations (Ben-Tor 1997: 177, Fig. 7). The repeated occurrence of the signs *r^c* comprising the name of the sun god Re may suggest association of the Egyptian prototype with the cult of this god (see also Keel 1995a: 176), though it does not necessarily imply a similar association for the Canaanite scarabs. The recently suggested association of the formula with the Canaanite god El (Richards 2001: 150-60) is not supported by archaeological or textual evidence. Moreover, it is highly unlikely considering the inconsistency in the choice of signs and the order in which they are displayed, both arguing against the interpretation of the design as representing a coherent script (Ben-Tor 1997: 175). The numerous variations of the formula and its association with a large variety of designs argue, as in the case of other Egyptian signs and symbols on Canaanite scarabs, against a single interpretation. Considering the absence of conclusive evidence for the Egyptian prototype or original meaning of design class 3C this issue remains open until further evidence becomes available.

§IIIA 3d. Design class 3D – Cartouches

As noted above (§IA 3d) Tufnell's subdivision of design class 3D is of minor diagnostic significance and is therefore not considered in this study. Like the previous chapter, a distinction is made here only between a simple oblong ring, an actual cartouche, and varia, which are categorized respectively as subclasses 3D1, 3D2, 3D3. Also like the previous chapter, the discussion below refers only to design scarabs and excludes oval rings enclosing a single sign.

§IIIA 3d1. Design class 3D1 – Simple oblong ring

Oblong rings enclosing groups of hieroglyphs that do not comprise royal names are well attested in the Palestinian series, most examples coming from the late series (Tufnell 1984: Pl. 17). The early series include five examples from Jericho (Pl. 57: 1-5), one from Megiddo (Pl. 57: 6),⁶⁴³ three from Tel Aviv Harbor (Pl. 57: 7-9), three from Rishon Leziyyon (Pl. 57: 10-12), and one from Azor (Pl. 57: 13). Most these examples depict the oblong ring enclosing variations of design class 3C (Pl. 57: 2, 4-7, 9-11, 13) but the ring is also depicted enclosing the common late Middle Kingdom combination of signs *nfr r^c* (Pl. 57: 1), other combinations of hieroglyphs (Pl. 57: 8), or misrendered signs (Pl. 57: 3, 12). In addition to the *nfr r^c*, a late Middle Kingdom inspiration is indicated also in examples displaying the design enclosed in a scroll border (Pl. 57: 2-3, 6, 11; above, §IA 3d). The Canaanite origin of these late Middle Kingdom inspired examples is indicated by the occurrence of design class 3C and misrendered signs.

§IIIA 3d2. Design class 3D2 – Actual cartouches

Actual cartouches enclosing hieroglyphs that do not comprise royal names are less common in the Palestinian series than simple oblong rings (Tufnell 1984: Pls. 17-18). Only two examples from Jericho (Pl. 57: 14-15)⁶⁴⁴ and one from Megiddo (Pl. 57: 16) survived in the early series, displaying the design in association with design class 3C, which indicates their Canaanite origin. One of the Jericho examples (Pl. 57: 15) displays also design class 3B2 (above), which further supports its Canaanite origin. The rare occurrence of the cartouche on early Canaanite scarabs may reflect its rare occurrence on late Middle Kingdom design scarabs (above, §IA 3d). This is supported by the relative popularity of the simple oblong ring, which as shown above (design class 3D1) was inspired by late Middle Kingdom prototypes.

§IIIA 3d3. Design class 3D3 – Varia

As noted in the previous chapter (above, §IIA 3d3) this subclass, which refers to examples depicting frames other than the canonical cartouche or the oblong ring, describes mainly irregular forms occurring on Canaanite scarabs. The early series include only one such example from Rishon Leziyyon, depicting a square frame enclosing design

⁶⁴³ Another example from the site (Guy 1938: Pl. 106: 5) displays design and features suggesting a late Middle Kingdom origin (see design class 3B1a).

⁶⁴⁴ The scarab depicted in Fig. 283: 10 has a duplicate in group IV (Kirkbride 1965: Fig. 297: 13), which indicates a likely confusion in the records and casts doubt on the original context of this scarab (see Tufnell 1984: 63 and design classes 2A and 3B1 above).

class 3B8 (above).⁶⁴⁵ This type of frame is occasionally depicted enclosing design class 3A4 on scarabs displaying early Canaanite characteristics (Pl. 57: 17-18).⁶⁴⁶ A scarab from Megiddo depicting half an oblong ring enclosing a *ḥfr* sign (Pl. 52: 23) may be a predecessor of the type noted in the previous chapter (above, §IIA 3d3), which is attested in the late Palestinian series (below, §IVA 3d3).⁶⁴⁷ The early Canaanite characteristics of the Megiddo scarab are manifested in its features (Loud 1948: Pl. 156: 100; below, §IIIB) and in the double representation of design class 3A4.

§IIIA 3e. Design class 3E – Panels

The diagnostic significance of five of Tufnell's subclasses of design class 3E (3E1-3E5) was noted above (§IIA 3e); design scarabs of the Second Intermediate Period Egyptian series display mainly subclasses 3E1 and 3E4, while the Palestinian series display mainly subclasses 3E1 and 3E5 (Tufnell 1984: 122-23, Pls. 19-20).⁶⁴⁸ Both design classes 3E1 and 3E5 are attested in the Palestinian series almost exclusively on Canaanite scarabs and both occur in the early series.

§IIIA 3e1. Design class 3E1 – Three or more signs in margins

Design class 3E1, displaying three or more signs in margins, is attested in the early series on two examples from Jericho (Pl. 57: 19-20), three from Megiddo (Pl. 57: 21-23), and two from Tel Aviv Harbor (Pl. 57: 24-25). Examples displaying early characteristics were also found at Hazor cistern 9024 (Pl. 57: 26), Tell el-Far`ah (N) (Pl. 57: 27), group III at Jericho (Pl. 57: 28), Gezer (Pl. 57: 29), Lachish (Pl. 57: 30), and Tell el-`Ajjul (Pl. 57: 31-34). The absence of the design in the known corpus of late Middle Kingdom scarabs and sealings, its initial occurrence in the early Palestinian series, and its close association with design class 3C, argue for its Canaanite origin. Tufnell's suggestion that the design may have developed from addorsed and linked cobras (1984: 123) is supported by some examples displaying early characteristics (Pl. 57: 22, 29, 31). It is interesting to note a late Middle Kingdom imported scarab from group II at Jericho (Kirkbride 1965: Fig. 288: 5) displaying a panel-like design with linked spirals flanking a vertical column of hieroglyphs. The design on this scarab, like its close parallel from Uronarti (Reisner 1955: Fig. 8: 162), is better defined as a combination of design classes 2B and 3B.

§IIIA 3e2. Design class 3E5 – "Shrine"

As noted above (§IIIB 1) subclasses 3E2, 3E3, and 3E4, which occur on a significant number of Second Intermediate Period royal-name scarabs, are either missing on design scarabs in the Palestinian series (3E2, 3E3), or occur almost exclusively on imported Egyptian scarabs (3E4) in the late series (below). Design class 3E5, on the other hand, is attested almost exclusively in the Palestinian series, most examples coming from the early series or displaying early Canaanite characteristics (Ben-Tor 1997: 179-81). The early series yielded five examples from Jericho (Pl. 58: 1-5), two from Megiddo (Pl. 58: 6-7), and two from Rishon Leziyyon (Pl. 58: 8-9). Examples displaying early Canaanite characteristics were found in later contexts at Jericho (Pl. 58: 10-11), Megiddo (Pl. 58: 12), and Tell el-`Ajjul (Pl. 58: 13-16). Unlike subclass 3E1, subclass 3E5 is not attested on royal-name scarabs of the Second Intermediate Period. Its close association with design class 3C and the fact that most examples display early Canaanite characteristics argue for an early MBIIB Canaanite origin. The complete absence of the design at sites such as Tell el-Far`ah (S) and Lachish, and the early Canaanite attributes of the examples that did not originate in the early series argue against the continuation of this subclass into the late series. The possible inspiration of the design from the Egyptian *srh* suggested by Tufnell (1984: 123) is supported by examples displaying addorsed falcons on top of the shrine (Ben-Tor 1997: 181, and Fig. 9: 8, 9).

§IIIA 3f. Design class 3F – The Omega group

A particular group of scarabs attested in the early Palestinian series was first recognized by Keel and characterized by him as the Omega Group based on the Ω-shaped motif decorating the base of most examples (Keel 1989: 40-87; 1995a: 31, § 55). The archaeological contexts of Omega-type scarabs are in most cases identical to those of the early series, and there is little doubt that this group was produced locally (Ben-Tor 1997: 185-86; Keel 2004: 78-81). The scarabs comprising this group differ in every respect – size, material, and form of decoration – from the known corpus of Egyptian and Canaanite scarabs; they are very small, made exclusively of faience, and their base decoration is made in raised relief. Moreover, Keel presents conclusive evidence demonstrating that the group was

⁶⁴⁵ Field no. A2731-7374. The scarab was found in the 1997-1998 seasons and will be published elsewhere.

⁶⁴⁶ Both examples come from Tell el-`Ajjul.

⁶⁴⁷ See e.g. Keel 1997: Azor, no. 4, Tell el-`Ajjul nos. 406, 459, Ashkelon No. 115.

⁶⁴⁸ The relatively large group displaying subclass 3E4 from Tell el-`Ajjul (Tufnell 1984: Pl. 20) is unique to this site, and consists mainly of Egyptian imports including royal-name scarabs (see late series below).

inspired by southern Anatolian prototypes (1989: 43-48). Displaying almost exclusively Levantine-inspired motifs, it is difficult to categorize scarabs of the Omega group under any of Tufnell's design classes. Yet, as most examples depict signs and symbols, albeit not Egyptian,⁶⁴⁹ they are categorized here under design class 3.

The Omega group provides supporting evidence for the production of scarabs in Palestine in the early MBIIB, and demonstrates local developments inspired by the Levantine cultural sphere already in the early series (Ben-Tor 1997: 185; Keel 2004: 79-81). The archaeological contexts of most examples argue that the production of Omega-type scarabs did not continue into the late series. The corpus presented by Keel (1989: 49-54) includes one example from Tell el-Far`ah (N) (Pl. 58: 19), one from Tel Gerisa (Pl. 58: 20), two from Jericho (Pl. 58: 21-22), three from Beth Shemesh (Pl. 58: 28-29; Pl. 63: 27), one from Gezer (Pl. 58: 23), two from Tell el-`Ajjul (Pl. 58: 24-25), one from Gibeon (Pl. 58: 26), and one from Megiddo (Pl. 58: 27). Omega-type scarabs were also found in Rishon Leziyyon (Pl. 58: 17-18).⁶⁵⁰

Summing up design class 3 in the early Palestinian series, it can be shown that designs comprising Egyptian signs and symbols enjoyed great popularity in the early phases of local scarab production in Palestine. The evidence presented above indicates that most late Middle Kingdom designs comprising Egyptian signs and symbols were imitated on early Canaanite scarabs. The evidence also demonstrates, however, a significant number of local variations and developments, which are not attested on the Egyptian prototypes. These are manifested in local variations of Egyptian late Middle Kingdom designs (e.g. design classes 3B1, 3B3, 3B5, 3B6), design classes that are not attested in the late Middle Kingdom corpus (e.g. design classes 3A3, 3A4, 3B8, 3C, 3E, 3F), and a large number of misrendered signs and pseudo hieroglyphs.

§IIIA 4. Design class 4 – Concentric circles

The popularity of design class 4 in the Palestinian series is attested in the number of examples presented by Tufnell (1984: Pls. 21-22), who notes its larger distribution in the early series compared with the late series (1984: 125).⁶⁵¹ The early series yielded twelve examples from Jericho (Pl. 58: 30-38, Pl. 59: 15-17), six from Megiddo (Pl. 58: 39-42, Pl. 59: 18-19), four from Tel Aviv Harbor (Pl. 58: 43-46), two from Beth Shemesh (Pl. 58: 47; Pl. 59: 20), and six from Rishon Leziyyon (Pl. 58: 48-50, Pl. 59: 1-3). Examples displaying early characteristics were also found in later contexts at Jericho (Pl. 59: 4-6), and Megiddo (Pl. 59: 7-8), and at sites such as Shechem (Pl. 59: 9), Lachish (Pl. 59: 10), Gibeon (Pl. 59: 11), and Tell el-`Ajjul (Pl. 59: 12-14). The single example from Ruweise (Tufnell 1984: Pl. 22: 1988), though not originating in Palestine, is contemporary in date with the early Palestinian series and displays identical design and features arguing for its production in Palestine (Ben-Tor 2003: 242-43, and Fig. 3).⁶⁵²

An examination of the particular patterns of the design in the early Palestinian series reveals distinct differences between them and those of the Montet Jar scarabs although both groups frequently display linked circles (Tufnell 1984: Pl. 21; Ben-Tor 2004c: Fig. 6). The Montet Jar scarabs and ovoids display patterns that are hardly attested on the Palestinian examples, such as groups of circles separated by lines (Tufnell 1984: Pl. 21: 1903, 1905-1909, 1911-1912, 1914, 1916-1917), rows of circles (Tufnell 1984: Pls. 21-22: 1913, 1914, 1916, 1917, 1967, 1971, 1972), or linked circles in the form of S-shaped spirals (Tufnell 1984: Pls. 21-22: 1911, 1914, 1916, 1917, 1929, 1967, 1971). Moreover, the Montet Jar patterns frequently consist of a larger number of circles of smaller size (Tufnell 1984: Pls. 21-22: 1908, 1915, 1917, 1970-1972). Even in rare cases when the designs are almost identical,⁶⁵³ or very similar,⁶⁵⁴ the difference between the two groups is quite clear. The early Palestinian examples often display the circles in variations of cross patterns (design class 5), a pattern rarely attested in the Montet Jar.⁶⁵⁵ Moreover, distinctive differences between the Montet Jar and early Palestinian examples are attested in the scarabs' features; the early Palestinian examples frequently display distinctive early Canaanite back types, which differ considerably from the features attested on the Montet Jar examples (below, §IIIB).

⁶⁴⁹ The only exception is an example from Beth Shemesh depicting an *ꜥnḥ* (Pl. 58: 28).

⁶⁵⁰ No drawings are available for the two additional examples (field nos. 94/91 1498, 94/91 1498/a) due to their poor state of preservation; the design on the former is unclear, while the latter displays the star and crescent (see Pl. 58: 18, 23).

⁶⁵¹ Tufnell's discussion of design class 4 is particularly problematic. In addition to incorrect dating of the Montet Jar scarabs and the early Palestinian series, and not recognizing the Canaanite origin of the latter, she suggests a decline in the popularity of the design during the 12th Dynasty (the date suggested by her for the early Palestinian series), while noting its larger distribution in the early series (1984: 124-25).

⁶⁵² There is no evidence to suggest scarab production in the region of Syria-Lebanon during the Middle Bronze Age.

⁶⁵³ Cf. Tufnell 1984: Pl. 21: 1925 from the Montet Jar and 1933-1934 from Jericho.

⁶⁵⁴ Cf. Tufnell 1984: Pl. 21: 1926 from the Montet Jar and 1960 from Jericho.

⁶⁵⁵ Only one example is known (Tufnell 1984: Pl. 21: 1925).

Two Montet Jar type scarabs bearing design class 4 were found in the Palestinian series,⁶⁵⁶ one from group II at Jericho (Kirkbride 1965: Fig. 282: 10 = Tufnell 1984: Pl. 21: 1918),⁶⁵⁷ and one from a late MBIIB context at Tell el-`Ajjul (Keel 1997: 378-79, no. 805). Both scarabs display designs that have parallels among the Montet Jar scarabs,⁶⁵⁸ and both display features (the ladder pattern on the back and side e6) which confirm their early Middle Kingdom Egyptian origin. The Jericho scarab was noted by Tufnell as unusual and as close in style to the Montet Jar scarabs (1984: 62); dating the context of the Jericho scarab to the early 12th Dynasty, Tufnell considered it as a link between the Montet Jar and Palestinian material. However, taking into account the evidence presented above for the absolute chronology of the early Palestinian series (introduction to chapter III), this early Middle Kingdom imported scarab undoubtedly constitutes an heirloom in its early MBIIB context, and this is also the case for the scarab from Tell el-`Ajjul.

As noted above (§IIA 4), borders of concentric circles are not known to occur on Egyptian Middle Kingdom scarabs, and they are not attested in Egypt before the Second Intermediate Period. Most examples from Palestine displaying borders of concentric circles come from the late series (below, §IVA 4). Yet, Ward's observation that the initial occurrence of such borders in the Palestinian series is not attested earlier than Jericho group III (Ward 1978b: 46) is based on Tufnell's revised assigning of the Jericho tombs to Kenyon's groups. The earliest example comes from tomb P17 (Pl. 59: 15), which is assigned in the publication to group II (Kirkbride 1965: Fig. 289: 7), but which Tufnell assigns to group III (1984: 67-68). Ward's observation is also contested by a handful of examples displaying distinctive early Canaanite characteristics, which include two additional examples from Jericho (Pl. 59: 16-17), two early examples from Megiddo (Pl. 59: 18-19),⁶⁵⁹ and one from Beth Shemesh (Pl. 59: 20). An example displaying distinctive early Canaanite features (below, §IIIB) was found at Tell el-`Ajjul (Pl. 59: 21).

The patterns of design class 4 in the early Palestinian series differ considerably from those attested on the Second Intermediate Period Egyptian scarabs discussed above (§IIA 4); a small number of imported scarabs of the latter type are attested in the late series, mainly at Tell el-`Ajjul (below, §IVA 4).

§IIIA 5. Design class 5 – Cross patterns

The combination of cross patterns with scrolls and spirals, which dominates the corpus of early and late Middle Kingdom examples displaying design class 5 (above, §IA 5), is extremely rare in the Palestinian series. Spirals are displayed with design class 5 in the Palestinian series almost exclusively as curled diagonals between the floral elements forming the cross pattern (Tufnell 1984: 125, Pl. 23: 2014, 2016-2019, 2044, 2054). Moreover, the Palestinian series frequently display a combination of cross patterns with concentric circles (Tufnell 1984: Pl. 23),⁶⁶⁰ which is extremely rare in the Middle Kingdom corpus (above, §IA 5). Further noteworthy differences between the Middle Kingdom and Palestinian examples of design class 5 are attested in the floral elements forming the cross pattern. The petals forming a rosette-like design, which constitute the most common form of late Middle Kingdom cross patterns (above, §IA 5) are not attested in the Palestinian series, which display a different type of central floral design.⁶⁶¹

Cross patterns are found in the early and late Palestinian series, but they are more prevalent in the early series (Tufnell (1984: 125), which yielded twelve examples from Jericho (Pl. 59: 22-33), six from Megiddo (Pl. 59: 34-39), one from Tel Aviv Harbor (Pl. 59: 40), and four from Rishon Leziyyon (Pl. 59: 41-44). A small number of examples displaying identical designs and early Canaanite features were found in later contexts at Megiddo (Pl. 59: 45), Lachish (Pl. 59: 46-48), and Tell el-`Ajjul (Pl. 59: 49-52).

The Canaanite production of the above listed scarabs is indicated by their designs, which are not attested in the corpus of Middle Kingdom scarabs, and especially by the distinctive Canaanite features of most examples, usually of the types associated with early Canaanite scarabs (below, §IIIB).⁶⁶² There is, however, no doubt as regards the

⁶⁵⁶ A possible third example from Jericho (Kirkbride 1965: Fig. 285: 1) displays very small circles similar to those attested on examples from the Montet Jar (See Tufnell 1984: Pl. 22: 1970-1973). The drawing of the scarab's features in the original publication does not allow establishing its origin.

⁶⁵⁷ Beck and Zevulun (1996: 70) support Kenyon's original assigning of phase 3 of tomb A34, where this scarab originated, to group II, contra Tufnell (1984: 59) and Dever (Ward and Dever 1994: 70) who assign it to group I or even pre-group I.

⁶⁵⁸ For the Jericho scarab see Tufnell 1984: Pl. 21: 1917, and for the Tell el-`Ajjul scarab see Tufnell 1984: Pl. 21: 1911.

⁶⁵⁹ Tufnell notes these early examples in her discussion of design class 4 (1984: 125).

⁶⁶⁰ The combination of the two designs made Tufnell assign a significant number of examples to both design classes 4 and 5 (e.g. Pl. 21: 1932-1935 = Pl. 23: 2013, 2020, 2025, 2026 respectively). Since a clear distinction between the two is frequently not possible, the double assigning of some examples to both designs is also done in this study.

⁶⁶¹ Compare the late Middle Kingdom examples in Tufnell 1975: Fig. 7: 326-331, 334-345, 347 with the Palestinian examples in Tufnell 1984: Pl. 23: 2017-2019, 2024, 2033, 2042, 2045, 2054.

⁶⁶² Tufnell notes one of these types, with the criss-cross back, which she dates to the early 12th Dynasty based on an example from Beth Shan bearing the name of Senwosret II (Tufnell 1984: 125). It is argued below, however, that this back type is one

late Middle Kingdom prototype of the design. The evidence from the Second Intermediate Period series discussed above (§IIA 5), which argues for the absence of the design on Egyptian scarabs of this period even at Tell el-Dab`a, is supported by the evidence from Palestine. As noted above, most examples in the Palestinian series come from the early series or display early Canaanite characteristics, suggesting that most Canaanite imitations of this Middle Kingdom design belong in the early phases of scarab production in Palestine. A decline in the popularity of the design is noted in the late series (below), which probably accounts for its rare occurrence in the Second Intermediate Period Egyptian series.

§IIIA 6. Design class 6 – Coiled and "woven" patterns

As noted above, (§IA 6) Tufnell's subdivision of design class 6 is somewhat problematic, especially her distinction between subclasses 6B1 and 6B2. Yet, her subclasses provide a convenient basis for establishing the differences between the Egyptian and the Palestinian series, and they are therefore considered below.

§IIIA 6a1. Design class 6A1 – Single line thread

The single line thread is attested on a small number of examples in the Palestinian series (Tufnell 1984: Pl. 24), the early series including one example from Rishon Leziyyon,⁶⁶³ and three from Jericho (Kirkbride 1965: Fig. 282: 3, Fig. 286: 3, Fig. 287: 2), two of the latter displaying late Middle Kingdom characteristics (Kirkbride 1965: Fig. 282: 3, Fig. 286: 3).⁶⁶⁴ The third Jericho example (Pl. 60: 1), depicting the single line thread enclosed in a single-paired oblong scroll border (design class 7B1, below) – a combination that is not attested on Middle Kingdom scarabs, argues for local Canaanite imitations of the design. Canaanite imitations are also indicated in a small number of examples displaying early Canaanite characteristics from later contexts, which include one scarab from Jericho (Pl. 60: 2),⁶⁶⁵ one from Gezer (Pl. 60: 3),⁶⁶⁶ one from Shechem (Pl. 60: 4),⁶⁶⁷ one from Tell el-`Ajjul (Pl. 60: 5), and two from Lachish (Pl. 60: 6-7).⁶⁶⁸ Tufnell notes the almost complete absence of the single line thread in the late Palestinian series (1984: 126), and her observation is supported by the early characteristics attested on the examples noted above. The evidence in the Palestinian series thus argues for occasional imitations of this Middle Kingdom design in the early phases of scarab production in Palestine, rarely continuing into the late series. This probably accounts for the complete absence of the design in the Second Intermediate Period Egyptian series (above, §IIA 6a).

§IIIA 6a2. Design class 6A2 – Single line loops

Designs comprising single line loops are extremely rare on scarabs displaying Canaanite characteristics, and no example comes from the early series. Occasional Canaanite imitations of single line loops are indicated by two examples from group V at Jericho (Pl. 60: 8-9),⁶⁶⁹ and two examples from Tell el-`Ajjul (Pl. 60: 10-11).⁶⁷⁰ The Canaanite origin of these scarabs is indicated by the combination of the loops with design classes 3B3 and 1E, which are not attested in the known late Middle Kingdom corpus (above, §IA 6a2). The scarabs' features display early Canaanite characteristics that argue for assigning them to the early MBIIB (below, §IIIB).

of the most distinguishing of early Canaanite scarabs, indicating the Canaanite production of the "royal-name" scarab from Beth-Shan (below, §IIIB).

⁶⁶³ A2731-7374 depicting also design classes 3B7, 3B8, and 3D3 (above). The scarab was found during the 1997-1998 seasons and will be published elsewhere.

⁶⁶⁴ Both display the single line thread on the lower part of a base surface divided by a double line, the upper surface depicting the sign of union (above, §IA 6a). A similar pattern with addorsed red crowns on the upper surface occurs on a scarab from Gezer (Brandl 1986: Pl. 2:3), which, like the Jericho scarabs is a late Middle Kingdom import constituting an heirloom in its MBIIB context.

⁶⁶⁵ Displaying the design in combination with a winged sun disk and design class 3B5.

⁶⁶⁶ The scarab depicts the design with addorsed crowns, a pattern unknown on Middle Kingdom examples. It also displays early Canaanite features.

⁶⁶⁷ This scarab displays a combination of design classes 6A and 7B1, like the Jericho scarab noted above.

⁶⁶⁸ Both these scarabs display early Canaanite features and depict the design with patterns that are not attested on Middle Kingdom scarabs.

⁶⁶⁹ A cowroid from Gezer depicting an unusual variation of the design (Macalister 1912: Pl. 206: 36) displays a floral decoration on its back, which argues for its Egyptian Second Intermediate Period origin (above, §IIB).

⁶⁷⁰ The scarab from Tell el-`Ajjul depicting a combination of a single line thread and single line loops is most probably a late Middle Kingdom Egyptian import (Keel 1997: 224-25, no. 361). Its e6/d14 side and D-type head are attested on late Middle Kingdom scarabs (above, §IB 5). Another likely late Middle Kingdom imports was found at Lachish (Tufnell 1958: Pl. 32: 83).

§IIIA 6b1. Design class 6B1 – Convoluted coils

Tufnell's distinction between subclasses 6B1 and 6B2 is not always clear, but most examples in the Palestinian series display her subclass 6B2 depicting knot-like patterns (1984: 126, Pls. 24-25), in contrast to the late Middle Kingdom series, which yielded mainly design class 6B1 (above, §IIA 6b, and **Pl. 14**). Only isolated examples in the Palestinian series are categorized by Tufnell under subclass 6B1, none of them from the early series, three of them displaying designs and features indicating a likely late Middle Kingdom origin.⁶⁷¹

The early series include one example of design class 6B1 from Megiddo (Guy 1938: Pl. 105: 1 = Rowe 1936, no. 86), displaying a design and features that argue for a likely late Middle Kingdom origin, and one example from Rishon Leziyyon (**Pl. 60: 12**), displaying a crude variation of the late Middle Kingdom prototype. The Canaanite production of the Rishon Leziyyon scarab is indicated by the poor execution of the design, and by the black stone of the scarab, which differs from the customary steatite and semi precious stones known from the Middle Kingdom corpus.⁶⁷² Another early Canaanite scarab depicting late Middle Kingdom type convoluted coils comes from a later context at Megiddo (**Pl. 60: 13**), its early Canaanite origin indicated by its distinctive back type (Loud 1948: Pl. 156: 84; below, §IIIB). These scarabs argue for occasional Canaanite imitations of late Middle Kingdom type convoluted coils, mainly in the early phases of scarab production in Palestine.

§IIIA 6b2. Design class 6B2 – Convoluted coils, knot-like

Most Palestinian examples displaying convoluted coils depict knot-like designs, which are categorized by Tufnell under design class 6B2 (1984: 126, Pls. 24-25). Tufnell divides design class 6B2 into two subtypes: 6B2a depicting a central 'x' cross, and 6B2b depicting a central bar. Both types are well attested in the Palestinian series, and both occur already in the early series, which include six examples from Jericho (**Pl. 60: 14-19**),⁶⁷³ one from Megiddo (**Pl. 60: 20**),⁶⁷⁴ and two from Rishon Leziyyon (**Pl. 60: 21-22**).⁶⁷⁵ Both types 6B2a and 6B2b are more common in the late series (Tufnell 1984: 126, Pls. 23-24).

The initial occurrence of most variations of design class 6B2 in the early Palestinian series, and their number and distribution in Palestine compared with Egypt argue for their Canaanite origin. Nevertheless, the inspiration of late Middle Kingdom convoluted coils on these Canaanite variations is evident.

§IIIA 6b3. Design class 6B3 – Convoluted coils, varia

The late Middle Kingdom pattern of convoluted coils with two decorated ovals at both ends of the plinth is attested on a small number of examples in the Palestinian series. The early series include an example from Rishon Leziyyon (**Pl. 60: 23**) displaying a pattern of the design that is attested in the late Middle Kingdom series (Von Pilgrim 1996: Fig. 102: 267). The scarab displays highly unusual features, however, that do not allow us to establish its origin. Yet, an almost identical design occurs on two early scarabs from Megiddo (**Pl. 60: 24-25**), both displaying features that argue for a Canaanite origin (below, §IIIB).⁶⁷⁶ Another example displaying the same design and Canaanite features comes from Beth Shan (**Pl. 60: 26**),⁶⁷⁷ depicting the design enclosed in a rope border (design class 8), a combination unattested on late Middle Kingdom scarabs. An example displaying a variation of the same design and distinctive early Canaanite features (below, §IIIB) was found at Shechem (**Pl. 60: 27**).⁶⁷⁸

As in the case of the late Middle Kingdom series, the design categorized here under subclass 6B3 is far less common than other coiled and woven designs. The few examples displaying Canaanite characteristics indicate that the design was imitated locally already in the early phase of scarab production in Palestine. Isolated examples occurring in the late series suggest occasional late imitations (below, §IVA 6b2), which may account for the late example from Ukma (above, §IIA 6b2).

§IIIA 6c. Design class 6C – Encompassed coils

The likely Canaanite origin of Tufnell's subclasses 6C1 and 6C2 was argued above (§IIA 6c), where it was also suggested that most examples displaying Second Intermediate Period variations of subclass 6C3 are of Egyptian origin. The discussion below considers the evidence from the Palestinian series, which display all three subclasses

⁶⁷¹ A scarab from group V at Jericho (Kirkbride 1965: Fig. 303: 7), and two scarabs from Tell el-`Ajjul (Keel 1997: 220-369, nos. 372, 780, the former displaying a human head).

⁶⁷² The stone should be examined to identify it and establish its origin.

⁶⁷³ Depicting, respectively, type a, type a, type a, type b, type a, type a.

⁶⁷⁴ Depicting type b.

⁶⁷⁵ Both depicting type b.

⁶⁷⁶ For the features see Rowe 1936: Pl. 2: 85; Loud 1948: Pl. 157: 131.

⁶⁷⁷ For the features see Rowe 1936: Pl. 3: 89.

⁶⁷⁸ For the features see Horn 1962: Fig. 2: 25.

(Tufnell 1984: 126-27, Pls. 26-27), in an attempt to establish the date and origin for each of these subclasses, and substantiate the conclusions presented above.

§IIIA 6c1. Design classes 6C1 – Encompassed, central + cross

Tufnell's consideration of this design as a "throw-back" to early Middle Kingdom patterns (1984: 126)⁶⁷⁹ is highly unlikely in view of the complete absence of similar designs in the late Middle Kingdom series. Moreover, Tufnell notes the distribution of the design almost exclusively in the late Palestinian series and its almost complete absence in the early series (1984: 126), which include only one example from Jericho.⁶⁸⁰ Not a single example depicting design class 6C1 displays early characteristics. Moreover, the Jericho scarab noted above was found in tomb J 54, assigned to group II, yet Tufnell notes three other scarabs from this tomb displaying late designs, and suggests a possible confusion in the records (1984: 63).⁶⁸¹ All other examples displaying the design from Jericho come from groups IV and V (Tufnell 1984: Pl. 26). Moreover, the distribution of the design in the Palestinian series argues for attributing the single example assigned to tomb J 54 to a later context, and design class 6C1 is discussed below in association with the late series.

§IIIA 6c2. Design class 6C2 – Encompassed, central twist

The distribution of this design class is identical to that of design class 6C1; not a single example can be associated with the early series and no example is attested at Jericho earlier than group IV (Tufnell 1984: 126, Pl. 27). Also as in the case of design class 6C1, not a single example displays early characteristics. Design class 6C2 is therefore discussed in association with the late series like design class 6C1.

§IIIA 6c3. Design class 6C3 – Encompassed coils, central cable

As noted above (§IIA 6c3), the designs categorized by Tufnell under subclass 6C3 usually display the central cable flanked by design class 3E4, which argues for a highly likely Egyptian Second Intermediate Period origin. Like the other subclasses of design class 6C this design is not attested in the early Palestinian series,⁶⁸² nor does it occur at Jericho earlier than group IV (Tufnell 1984: 127, Pl. 27). Therefore, as in the case of design classes 6C1 and 6C2, design class 6C3 is discussed below in association with the late series. Late Middle Kingdom patterns depicting central cables (above, §IA 6c1) are extremely rare on Canaanite scarabs.⁶⁸³ Three such examples, displaying local imitations of late Middle Kingdom patterns, were found at Lachish (Pl. 60: 28-30), two of them showing the design in combination with design class 6A (Pl. 60: 28, 30), and one displaying it with design class 3B3 (Pl. 30: 29). No examples are known from the early series, yet the three examples from Lachish display early Canaanite features (below, §IIIB) arguing for occasional early Canaanite imitations of this late Middle Kingdom pattern, which hardly continued into the late series.⁶⁸⁴

§IIIA 7. Design class 7 – Scroll borders

As in the case of design classes 3 and 6, Tufnell's subdivision of design class 7 (1984: 127-31, Pls. 28-32) helps establish the differences between the Egyptian and the Palestinian series, and thereby distinguish between Egyptian and Canaanite scarabs. Most subclasses of the design are therefore considered below except for the distinction between hooked and joined scrolls, which as in the case of the Egyptian series is of minor significance also for the Palestinian series.⁶⁸⁵ Unlike the discussion of the Egyptian series (late Middle Kingdom and Second Intermediate Period), the discussion below refers almost exclusively to design scarabs as Canaanite scarabs do not include royal-name and private-name scarabs, and those found in the Palestinian series are Egyptian imports or, rarely, local imitations.

⁶⁷⁹ E.g. Ward 1978: Pl. 3: 87-88.

⁶⁸⁰ Kirkbride 1965: Fig. 283: 4.

⁶⁸¹ See also design class 2A above.

⁶⁸² A unique early scarab from Megiddo (Tufnell 1973: Fig. 1: 39) was correctly noted by Tufnell as "individual in design and somewhat remote from the rest" (1984: 127).

⁶⁸³ A late Middle Kingdom imported scarab displaying the design was found at Beth Shemesh (Grant 1932: Pl. 51: 37 = Rowe 1936, no. 419).

⁶⁸⁴ The only published example comes from Tell el-'Ajjul (Keel 1997: 115, no. 33), depicting the cables in combination with hieroglyphs.

⁶⁸⁵ The clear majority of hooked scrolls in the Palestinian series (Tufnell 1984: Pls. 28-32) most likely reflects a preferable style on the part of the Canaanite artisans. Joined scrolls are attested on a small number of Canaanite scarabs exclusively in the late series (e.g. Tufnell 1984: Pls. 29-31: 2283-2284, 2306-2307, 2353-2354, 2361-2362).

§IIIA 7a. Design class 7A – Continuous scroll border

As noted above (§IA 7) Tufnell divides this design into two main subclasses: 7A1 – continuous round scrolls; 7A2 – continuous oblong scrolls (1984: 127-28, Pls. 28-29).

§IIIA 7a1. Design class 7A1– Continuous, round scrolls

The design is attested in the Palestinian series enclosing Egyptian signs and symbols and rarely also patterns of scrolls and spirals (Tufnell 1984: Pl. 28), both variations occurring in the late Middle Kingdom series (above, §IA 7a). The early series yielded only four examples from Jericho (Pl. 61: 1-4), and one from Megiddo (Pl. 61: 5), all depicting the scroll border enclosing Egyptian signs and symbols, yet displaying distinctive Canaanite designs such as design class 3C (Pl. 61: 2, 5), features (below, §IIIB), or misrendered signs (Pl. 61: 3) indicating their local production. A small number of late Middle Kingdom imports were found in the Palestinian series, undoubtedly constituting heirlooms.⁶⁸⁶

Tufnell's dating of the design mainly to the reign of Senwosret I is based on its occurrence on royal-name scarabs bearing the king's throne name,⁶⁸⁷ and on her dating of the early Palestinian examples (1984: 127-28). The evidence presented above for the posthumous production of all scarabs bearing the throne name of Senwosret I (§IB 1), and for the post Middle Kingdom date of the early Palestinian series (introduction to chapter III), argues against Tufnell's proposed dating of design class 7A1. The evidence argues for the late Middle Kingdom origin of this type of scroll border, and for late Middle Kingdom prototypes constituting the source of inspiration for the Canaanite imitations attested in the early Palestinian series.

As demonstrated above (§IA 7a1) design class 7A1 occurs on a relatively small number of design scarabs in the late Middle Kingdom series, and this is also the case in the Palestinian series, both early and late (Tufnell 1984: 127-28). It is interesting to note that early Canaanite examples do not display imitations of private-name scarabs or the customary late Middle Kingdom patterns depicting the design enclosing combinations of various hieroglyphs with the sign *nfr* (above, §IA 7a1).⁶⁸⁸ The early Canaanite scarabs display variations of the design which assimilate Canaanite developments into the repertoire of Egyptian Middle Kingdom designs, a blending that is apparent in all local variations of design class 7 (below).

§IIIA 7a2. Design class 7A2 – Continuous, oblong scrolls

Like late Middle Kingdom design scarabs, the Palestinian series display more examples of design class 7A2 than design class 7A1, most of them coming from the late series (Tufnell 1984: 128). The early series include one example from Jericho (Pl. 61: 6), three from Rishon Leziyyon (Pl. 61: 7-9), and one from Megiddo (Pl. 61: 10), all displaying Canaanite characteristics that argue for early Canaanite imitations of this late Middle Kingdom design. The early series yielded also late Middle Kingdom imports displaying the design at Megiddo (Guy 1938: Pl. 105: 10), and Beth Shemesh (Grant 1929: 89, 5th row, 1st from the left). Additional examples displaying early Canaanite characteristics were found at Ginnosar (Pl. 61: 11) and in a later context at Megiddo (Pl. 61: 12), Tell el-Far`ah (N) (Pl. 61: 13), Lachish (Pl. 61: 14), and Tell el-`Ajjul (Pl. 61: 15).

The Rishon Leziyyon and Megiddo examples display distinctive early Canaanite designs: design class 3A4 (Pl. 61: 9) and 3C (Pl. 61: 8) and misrendered signs (Pl. 61: 7, 10, 12). They also display early Canaanite features (below). One of the Rishon Leziyyon examples (Pl. 61: 8) displays a design identical to that attested on the early example of design class 7A1 from Megiddo (Pl. 61: 5), both depicting the continuous scroll border enclosing an oblong ring enclosing the hieroglyphs *htp-n-r*^c (a variation of design class 3C). It is interesting to note that the Jericho example (Pl. 61: 6) displays the misrendered signs in a manner suggesting an attempt to imitate a late Middle Kingdom private-name scarab. As in the case of design class 7A1 the early Canaanite examples of design class 7A2 display Canaanite designs enclosed in the scroll border, the latter clearly inspired by late Middle Kingdom prototypes. Also like design class 7A1, the Canaanite examples displaying design class 7A2 rarely display imitations of late Middle Kingdom designs enclosed in the scroll border,⁶⁸⁹ though occasional late Middle Kingdom heirlooms were found in the Palestinian series.⁶⁹⁰

⁶⁸⁶ E.g. Kirkbride 1965: Fig. 301: 14 from Jericho (a private-name scarab); Tufnell 1984: 57, Fig. 17: 24 from Hazor cistern 9024; Keel 1997: 499, no. 1159 from Tell el-`Ajjul.

⁶⁸⁷ See Tufnell 1984: Pl. 51: 3016-3021. One such example was found at Gezer (Macalister 1912: Pl. 203b: 1).

⁶⁸⁸ See, however, the discussion of the design in the Second Intermediate Period Egyptian/Nubian series (above, §IIA 7a) and the late Palestinian series (below, §IVA 7a2), for evidence of later imitations of late Middle Kingdom prototypes.

⁶⁸⁹ The only exception is the scarab from Ginnosar depicting the border enclosing a *nfr* sign (Pl. 61: 11).

⁶⁹⁰ See also Watzinger 1929: Fig. 12: 3 = Martin 1971, no. 1766a from Megiddo; Keel 1997: 383, no. 817 from Tell el-`Ajjul; Mizrachy in Kempinski 2002: Fig. 9.2: 13 from Kabri.

Tufnell's attempt to date this design relies as in the case of design class 7A1 on its distribution in the Palestinian series and its occurrence on royal-name scarabs bearing names of 12th Dynasty kings (1984: 128). The difficulties associated with Tufnell's suggested dates are even more apparent in the case of design class 7A2, as its late distribution in the Palestinian series contradicts its alleged popularity on royal-name scarabs of the 12th Dynasty. The evidence presented above argues, as in the case of design class 7A1, for the late Middle Kingdom origin of the design, possibly in the late 12th Dynasty (above, § IB 1), and its imitation on Canaanite scarabs beginning in the early series.

§IIIA 7b. Design class 7B – Paired scroll borders with a loop at the top and a curved line at the base

The popularity of design class 7B in the Palestinian series is attested in the plates assembled by Tufnell from the three sites included in her survey, which also demonstrate the scarcity or complete absence of particular subclasses (Tufnell 1984: Pls. 30-31). As in the case of design class 7A the distribution of the four main subclasses of design class 7B in the Palestinian series in comparison with the Egyptian series (late Middle Kingdom and Second Intermediate Period) helps distinguish between Egyptian and Canaanite scarabs.

§IIIA 7b1. Design class 7B1(ii) – Paired scrolls, one pair, oblong

As noted above (§IA 7b1), paired scroll borders comprising one pair are not known to occur with round scrolls. The number of examples displaying design class 7B1(ii) in the Palestinian series (Tufnell 1984: 128, Pl. 30) attests to its relative popularity in Palestine in comparison with its scarcity in the late Middle Kingdom series (above, §IA 7b1). Most examples come from the late series (below), yet the early series include three examples from Jericho (**Pl. 61: 16-18**), attesting to Canaanite imitation of this Middle Kingdom design already in the early phase of scarab production in Palestine.

The Canaanite origin of the Palestinian examples is indicated by the choice of signs enclosed in the scroll border, which are not attested in any of the Middle Kingdom examples. It is also indicated by the longitudinal setting displayed by the Palestinian examples, in contrast to the vertical setting displayed by all late Middle Kingdom examples (**Pl. 16: 10-15**). The few early Middle Kingdom examples, though displaying a longitudinal setting, display a notably different choice and arrangement of signs enclosed in the scroll border (**Pl. 16: 8-9**).⁶⁹¹ Unlike in the case of design class 7A, which encloses mainly Canaanite designs or misrendered signs, the designs enclosed in the one-paired scroll border usually display a choice of late Middle Kingdom designs, such as 3B4 (**Pl. 61: 16**), 3B6 (**Pl. 61: 17-18**), and 6A (**Pl. 61: 18**). It is important to note, however, that the combination of these designs with design class 7B1(ii) is not attested on a single example in the known corpus of Middle Kingdom scarabs. Originally occurring on early Middle Kingdom scarabs, design class 7B1(ii) is attested only on a very small number of early and late Middle Kingdom scarabs (above, §IA 7b1), and there is no evidence to suggest Second Intermediate Period Egyptian examples. Most scarabs bearing the design come from the Palestinian series (below), displaying characteristics that argue for local productions beginning in the early series and continuing throughout the Middle Bronze Age.

§IIIA 7b2. Design class 7B2(ii) – Paired scrolls, two pairs, oblong

As in the case of design class 7B1, no examples of design class 7B2 are attested with round scrolls (Tufnell 1984: 128). As demonstrated above (§IIA 7b), design class 7B2(ii) is not attested on Second Intermediate Period scarabs manufactured in Egypt. Moreover, it is only rarely attested in the corpus of late Middle Kingdom scarabs, although its late Middle Kingdom origin is indicated by isolated published examples (above, §IA 7b2). The Palestinian series include a relatively large number of examples in comparison with the Egyptian series, most of them in the late series (Tufnell 1984: 128-29, Pl. 30). The early series include only two examples from Jericho (**Pl. 61: 19-20**),⁶⁹² two from Megiddo (**Pl. 61: 21-22**), and one from Rishon Leziyyon (**Pl. 61: 23**), which argue for Canaanite imitations of design class 7B2(ii) already in the early phase of scarab production in Palestine. None display designs or features that argue for Egyptian Middle Kingdom origin. Moreover, the signs enclosed by the scroll border on these scarabs display typical early Canaanite misrendered signs (**Pl. 61: 20, 23**), or imitations of the late Middle Kingdom combinations of signs with *nfr* (**Pl. 61: 19, 21-22**), which are usually enclosed in various other types of scroll borders on late Middle Kingdom scarabs (above, §IA 7a-b). Tufnell's dating of design class 7B2(ii) mainly to the 12th and 13th Dynasty (1984: 128-29) is contradicted by its almost complete absence in the Middle Kingdom series, and by its prevalence in the late Palestinian series (below). First occurring on isolated late Middle Kingdom examples (above, §IA 7b2) the design is imitated on Canaanite scarabs already in the early series, gaining in popularity in the late series (below, §IVA 7b2).

⁶⁹¹ For the most likely early Middle Kingdom date of these Kahun sealings see above, §IA 7b1.

⁶⁹² Tufnell attributes both scarabs, which came from tombs A34 and A134, to group III (1984: 70-71, 318).

§IIIA 7b3. Design class 7B3(i)– Paired scrolls, three pairs, round

As demonstrated above (§IA 7bb3), this design is completely absent on late Middle Kingdom design scarabs, occurring only on three contemporary private-name scarabs of unknown provenance (Martin 1971: Pl. 3: 18-20). The Palestinian series yielded only three scarabs bearing the design, two from the early series: one from Megiddo (Pl. 61: 24), and one from Beth Shemesh (Pl. 61: 25), and one from unclear context at Tell el-`Ajjul (Pl. 61: 26). The example from Tell el-`Ajjul displays well-executed signs and no distinctive Canaanite characteristics. The Megiddo example also displays well-executed hieroglyphs but depicts the sign *k3* with a triangle on the horizontal line – a typical early Canaanite form (Ben-Tor 1997: 171, and Fig. 4), which argues for the Canaanite production of the scarab. The Beth Shemesh example depicts distinctive Canaanite misrendered signs. The Canaanite traits of the Megiddo and Beth Shemesh examples, and the complete absence of design class 7B3(i) on Egyptian design scarabs of the late Middle Kingdom and Second Intermediate Period, argue for the Canaanite production of the example from Tell el-`Ajjul.⁶⁹³ The rare occurrence of the design on Egyptian scarabs most probably accounts for its rare occurrence on Canaanite scarabs.

Design class 7B3(ii) – Paired scrolls, three pairs, oblong

As in the case of late Middle Kingdom scarabs (above, §IA 7b3) design class 7B3(ii) constitutes the most common scroll border in the Palestinian series (Tufnell 1984: 129). Unlike late Middle Kingdom scarabs, which display the design almost exclusively with private names and titles, most Palestinian examples display the design with misrendered signs and symbols (Tufnell 1984: Pl. 31) arguing for their Canaanite origin. The design is more common in the late Palestinian series, yet the early series yielded six examples from Jericho (Pl. 61: 27-32),⁶⁹⁴ and one from Beth Shemesh (Pl. 61: 33).

Late Middle Kingdom private-name scarabs displaying the design were found in Jericho (Kirkbride 1965: Fig. 286: 14) and Megiddo (Tufnell 1973: Fig. 1: 51), undoubtedly constituting heirlooms in their MBIIB contexts.⁶⁹⁵ Another example from Megiddo (Tufnell 1973: Fig. 1: 13) depicts the child hieroglyph, which is well attested on late Middle Kingdom scarabs (above, §IA 3a3), and is completely absent in the known corpus of Canaanite scarabs, arguing for the late Middle Kingdom origin of the scarab. The Canaanite examples listed above display misrendered signs (Pl. 61: 27, 29-30, 32) or other Canaanite characteristics such as design classes 3B2 (Pl. 61: 28), 3B8 (Pl. 61: 31),⁶⁹⁶ and 3C (Pl. 61: 29).

The scarabs bearing the names of Senwosret II and III presented by Tufnell as evidence for the 12th Dynasty origin of the design (1984: 129) are not contemporaneous royal-name scarabs (above, §IB 1). As already stated above (§IB 1), the earliest securely dated example of design class 7B3(ii) is a lapis lazuli royal-name scarab of Amenemhat III from the jewelry treasure of princess Sit-Hathor Yunet at el-Lahun (Winlock 1934: 56, Pl. 12: D; Tufnell 1984: Pl. 53: 3085 = Pl. 20: 18). The scarabs displaying the design in the early Palestinian series are imported late Middle Kingdom heirlooms or Canaanite imitations of the design dating from the early Second Intermediate Period.

§IIIA 7b4. Design class 7B4(i) – Paired scrolls, four (or more) pairs, round

This type of late Middle Kingdom scroll border is extremely rare in the Palestinian series. Not a single example is attested at Jericho, Megiddo, or Tell el-`Ajjul (Tufnell 1984: 129, Pl. 31) and it is also missing at Lachish. Yet Rishon Leziyyon yielded one poorly executed example depicting the design enclosing misrendered signs (Pl. 62: 1), which argue for a Canaanite origin. The black stone the scarab is made of, which is not steatite or any of the semi-precious stones attested with Egyptian scarabs of the first half of the second millennium BCE,⁶⁹⁷ also argues for a Canaanite origin. The published corpus of excavated scarabs from Palestine includes one example from the late series at Tell el-Far`ah(S) (Tufnell 1984: Pl. 31: 2356) displaying misrendered signs that attest to its Canaanite origin.⁶⁹⁸ The scanty evidence for design class 7B4(i) in the Palestinian series indicates that this late Middle Kingdom

⁶⁹³ There is no record of this scarab's features (Keel 1997: 415, no. 914).

⁶⁹⁴ The scarab from tomb J54 (Fig. 283: 5) has a duplicate in group IV (Fig. 297: 9) casting doubt on the find spot of this scarab (see Tufnell 1984: 63, and design classes 3B1 and 3D above). Nevertheless, the scarab is included here as an early example since it displays distinctive early Canaanite features (below, §IIIB).

⁶⁹⁵ See Ben-Tor 1994: 14, nos. 22, 26.

⁶⁹⁶ An additional example displaying the combination of design classes 7B3(ii) and 3B8 was found at Lachish (Tufnell 1958: Pl. 30: 36).

⁶⁹⁷ The stone is most probably the same as that of the scarab depicting design class 6B1 from the site (above).

⁶⁹⁸ The design occurs also on an amethyst royal-name scarab from a Late Bronze context at Beth Shan bearing the throne name of Senwosret I (Rowe 1930: Pl.34: 1 = Tufnell 1984: Pl. 51: 3029). The material and features of this scarabs as well as the accurate form of the hieroglyphs argue for a late Middle Kingdom Egyptian origin.

design, which is attested mainly on private-name scarabs of the period, was only rarely imitated on Canaanite scarabs.

Design class 7B4(ii) – Paired scrolls, four (or more) pairs, oblong

As demonstrated above (§IA 7b4, §IIA 7b), design class 7B4(ii) was hardly ever used on late Middle Kingdom Egyptian scarabs, nor is it attested in the Second Intermediate Period Egyptian/Nubian series. The Palestinian series, on the other hand, display some examples bearing the design, all from the late series (Tufnell 1984: 129, Pl. 31) and all displaying misrendered signs indicating their Canaanite origin. No example is attested in the early series.

§IIIA 7c. Design class 7C – Paired scrolls, with broken or omitted loop at the top and/or base

As demonstrated above (§IA 7c, §IIA 7c), most subclasses of this design are completely absent on late Middle Kingdom design and private-name scarabs and they are extremely rare on design scarabs of the Second Intermediate Period. It was also demonstrated that subclasses 7C2(ii) and 7C3(ii) are characteristic of royal-name and private-name scarabs of the Second Intermediate Period (above, §IIB 1, 3). The Palestinian series include a very small number of scarabs bearing design class 7C, most of them constituting Egyptian imports, but also isolated examples attesting to local imitations.

§IIIA 7c1. Design class 7C2(ii) – Paired scrolls, open, two pairs, oblong

No example of design class 7C1 is attested in the Egyptian or the Palestinian series. The single example from Tell el-`Ajjul presented by Tufnell as depicting design class 7C1 (ii) (Tufnell 1984: Pl. 32: 2363), depicts in fact design class 7B1(ii) as can be seen in the photograph presented by Keel (1997: 417, no. 920). As in the case of the Egyptian series, design class 7C2 is attested only with oblong scrolls also in the Palestinian series (Tufnell 1984: 130). It was demonstrated above (§IIB 1) that this type of scroll border occurs on royal-name scarabs of the Second Intermediate Period mainly in association with kings assigned to Groups 1 and 2. The examples presented by Tufnell from the Palestinian series are exclusively Egyptian imports constituting four Second Intermediate Period royal-name scarabs (Tufnell 1984: Pl. 32: 2364-2367), and an unclear sealing which more likely displays a late Middle Kingdom variation of design class 7B rather than design class 7C2 (Tufnell 1984: Pl. 32: 2368). The Egyptian Second Intermediate Period origin of design class 7C2(ii) is confirmed by its complete absence on scarabs displaying Canaanite characteristics. The complete absence of imported Second Intermediate Period royal-name scarabs displaying design class 7C2(ii) in the early series has important chronological and historical implications (above, §IIB 1).

§IIIA 7c2. Design class 7C3(ii) – Paired scrolls, open, three pairs, oblong

The rare occurrence of design class 7C3 with round scrolls was noted above (§IIA 7c). As in the case of design class 7C2(ii) only isolated examples displaying design class 7C3(ii) are attested in the Palestinian series, none of them in the early series (Tufnell 1984: 130, Pl. 32). However, unlike in the case of design class 7C2(ii), an example from Tell el-`Ajjul displaying design 7C3(ii) with misrendered signs (Keel 1997: 119, no. 42 = **Pl. 93: 9**)⁶⁹⁹ indicates its imitation on Canaanite scarabs.⁷⁰⁰ One of the private-name scarabs from Tell el-`Ajjul presented by Tufnell is correctly dated by her to the 13th Dynasty (1984: 130, Pl. 32: 2370); it displays the distinctive late Middle Kingdom variation of design class 7C3 (above, §IA 7c1), and is undoubtedly a late Middle Kingdom import,⁷⁰¹ constituting an heirloom in the context in which it was found (Ben-Tor 1994: 13, no. 3).

Tufnell dates design class 7C3(ii) between the late 12th and early 15th Dynasties based on its occurrence on royal-name scarabs (1984: 130). The late 12th Dynasty scarabs referred to by Tufnell in this case, are indeed contemporaneous examples. They display, however, a late Middle Kingdom variation of design class 7C3(ii) depicting the open ends of the scroll border as confronted serpents (above, §IA 7c1), which Tufnell does not distinguish from the Second Intermediate Period variation depicting them as vertical parallel lines. The chronological distinction between the two is confirmed by royal-name and private-name scarabs of both periods.⁷⁰² As in the case of design class 7C2(ii), there is little doubt as to the Egyptian origin of the Second Intermediate Period variation of design

⁶⁹⁹ The other example from the site presented by Tufnell as displaying design class 7C3(ii) (1984: Pl. 32: 2369), depicts in fact design class 7B3(ii) as indicated by the photograph presented by Keel (1997: 385, no. 825).

⁷⁰⁰ Another example from the site (Tufnell 1984: Pl. 32: 2373 = Keel 1997: 473, No. 1077) has an imitation of the late Middle Kingdom variation of design class 7C3(ii) rather than the Second Intermediate Period one.

⁷⁰¹ It displays typical 13th Dynasty features such as C head and Martin's back type 6 (Keel 1997: 113, no. 25).

⁷⁰² The only exception is the royal-name scarab of Khyan from Tell el-Yehudiyeh depicting the border as two serpents (**Pl. 43: 7**).

class 7C3(ii) occurring on royal-name and private-name scarabs of this period (above, §IIB 1). Moreover, the complete absence of both these designs in the early Palestinian series is of considerable chronological significance in respect to their occurrence in the Second Intermediate Period royal-name series.

§IIIA 7c3. Design class 7C4(i)– Paired scrolls, open, four pairs (or more), round

This design is not attested in the Egyptian series, Middle Kingdom or Second Intermediate Period and there is no conclusive evidence for its occurrence on Egyptian scarabs of these periods.⁷⁰³ It occurs, however, on isolated examples in the Palestinian series (Tufnell 1984: 130, Pl. 32) mainly in the late series. The example presented by Tufnell from the early series at Jericho (1984: Pl. 32: 2376) does not display design class 7 but a combination of design classes 2B and 3B, as indicated by a close parallel from Uronarti (Reisner 1955: Fig. 8: 162). The latter argues for the Egyptian late Middle Kingdom origin of the Jericho scarab, which is confirmed by its features (see also design class 3E above).

§IIIA 7c4. Design class 7C4(ii) – Paired scrolls, open, four pairs (or more), oblong

This design is attested only on a single scarab from group V at Jericho (Tufnell 1984: Pl. 32: 2377) undoubtedly of Canaanite origin as indicated by the misrendered signs enclosed in the scroll border. The early series did not yield a single example.

Summing up design class 7 in the early Palestinian series it can be shown that most late Middle Kingdom variations of the design are imitated on early Canaanite scarabs, while Second Intermediate Period variations attested in the royal-name series are completely absent. The chronological implications of this absence are discussed above (§IIB 1). The evidence for design class 7 in the early Palestinian series also indicates local Canaanite developments of late Middle Kingdom designs. These are manifested in examples displaying misrendered signs enclosed in late Middle Kingdom type scroll borders, and in variations of the actual scroll borders, which are not attested on the late Middle Kingdom prototypes. Local variations are also indicated in combinations of the scroll border with various late Middle Kingdom designs, combinations that are completely absent in the known corpus of late Middle Kingdom scarabs.

The complete absence of all subclasses of design class 7 on the scarabs from Tel Aviv Harbor may have a chronological significance, yet, considering the number of early examples at other sites, it is more likely an accident of survival. As in the case of the Second Intermediate Period excavated series from Egypt and Nubia, the number of surviving examples in the early Palestinian series does not necessarily reflect the actual popularity of each and every design.

§IIIA 7-8. Design class 7 + 8 – Oblong scrolls with rope border

The combination of scroll and rope borders was not discussed in the previous chapters due to its complete absence in the Egyptian Middle Kingdom and Second Intermediate Period series and in the known corpus of Egyptian design scarabs of these periods. The Palestinian series include a significant number of examples displaying this combination with various types of scroll borders (Tufnell 1984: Pl. 33), usually enclosing misrendered signs that indicate their Canaanite origin. None of the Palestinian examples displays characteristics that argue for an Egyptian origin, and this design can be considered as one of the markers of Canaanite scarabs albeit its late Middle Kingdom origin, which is indicated by four late Middle Kingdom private-name scarabs of unknown provenance (Martin 1971: Pl. 39: 10, 11, 12).⁷⁰⁴

Tufnell notes the large number of examples from Jericho, which far exceeds that from the other two sites included in her survey, most examples coming from the late groups (1984: 130, Pl. 32). The design is attested in the early series on five examples from Jericho (Pl. 62: 2-6),⁷⁰⁵ one from Megiddo (Pl. 62: 7),⁷⁰⁶ and one from Rishon Leziyyon (Pl. 62: 8).⁷⁰⁷ The rare occurrence of the design at Tell el-Far`ah (S) and Tell el-`Ajjul was noted by Tufnell as somewhat intriguing considering the number of examples from the late groups at Jericho (1984: 130). The design is also extremely rare at Lachish, but it does occur, though in small numbers, at other sites in the late series

⁷⁰³ Two inconclusive examples of late Middle Kingdom private-name scarabs occur in Martin's corpus (Pl. 4: 15, Pl. 5: 4) depicting four and five pairs respectively. These scarabs more likely depict design class 7B4 rather than 7C4, but an examination of their photographs is required to confirm it.

⁷⁰⁴ These examples depict the rope border enclosing scroll borders 7B1(ii), 7A2, and 7B3(ii) respectively. An additional example (Martin 1971: Pl. 40: 17) depicts a double rope border (8AA) enclosing scroll border 7B3(ii).

⁷⁰⁵ Enclosing, respectively, scroll borders 7B3(ii), 7B3(ii), 7B2(ii), 7B3(ii), 7B2(ii).

⁷⁰⁶ Enclosing scroll border 7B4(i).

⁷⁰⁷ Enclosing scroll border 7A2.

(below, §IVA 7-8). Its relatively scarce occurrence at most sites in comparison with Jericho is indeed difficult to explain but it does not seem to have a chronological significance considering its almost complete absence also at Megiddo.

The rare occurrence of the design on late Middle Kingdom scarabs makes it difficult to determine if its popularity on Canaanite scarabs was initially inspired by its occurrence on late Middle Kingdom private-name scarabs or if it reflects a combination of two Middle Kingdom type borders initiated by Canaanite artisans.

§IIIA 8. Design class 8 – Rope borders

The popularity of design class 8 in the Palestinian series is indicated in the number of examples presented by Tufnell from the three sites included in her survey (1984: Pls. 34-35). As in the case of the Egyptian series, no distinction is made here between Tufnell's subclasses 8A and 8B.

§IIIA 8a. Design class 8A – Twisted strand

The most striking difference between the Egyptian and Palestinian series with regard to design class 8A is the almost complete absence in the Palestinian series of the double-twisted strand defined by Tufnell as subclass 8AA (above, §IA 8a). The isolated published examples come exclusively from the late series (below). Another notable difference between the Palestinian and Egyptian series is the choice of designs enclosed in the rope border, which represents as in the case of the scroll borders, local Canaanite developments (below).

Tufnell notes the popularity of the design throughout the period included in her survey (1984: 131), though as noted above (§IA 8a) her suggested dates, which are based on the occurrence of the design on royal-name scarabs, are highly problematic. The late Middle Kingdom origin of the rope border was demonstrated above (§IA 8a), and its popularity in the Palestinian series reflects primarily its adaptation on Canaanite scarabs (below). Not including the combination of designs 7+8, the early series yielded eight examples from Jericho (**Pl. 62: 9-16**), three from Megiddo (**Pl. 62: 17-19**), and one from Rishon Leziyyon (**Pl. 62: 20**). Additional examples displaying early characteristics were found in later contexts at Jericho (**Pl. 62: 21**), and at Tell el-`Ajjul (**Pl. 62: 22**). The designs enclosed in the rope border include misrendered signs (**Pl. 62: 15-17, 22**) and distinctive Canaanite designs such as 3A4 (**Pl. 62: 14, 16, 21**), 3C (**Pl. 62: 10, 15**), 3E5 (**Pl. 62: 15**), and 10 (**Pl. 62: 10, 19**). They also include combinations with late Middle Kingdom designs such as 2A (**Pl. 62: 11**),⁷⁰⁸ 3A1 (**Pl. 62: 13, 20**), which are not attested on late Middle Kingdom scarabs. As in the case of most types of scroll borders, imitations of late Middle Kingdom designs enclosed in the rope border are not attested on Canaanite scarabs.

§IIIA 8b. Design class 8C – Full "twisted" cable

In contrast to the great popularity of design class 8A on Canaanite scarabs, design class 8C is extremely rare in the Palestinian series. Tufnell presents only four examples from the three sites included in her survey (1984: Pl. 35: 2473-2476), one of them (no. 2475) is a cowroid of a type suggesting a most likely early 18th Dynasty import.⁷⁰⁹ The early series include only one example from Jericho depicting the twisted cable enclosing design class 6B2 (**Pl. 62: 23** = Tufnell 1984: Pl. 35: 2473). This combination, which is not attested on Middle Kingdom scarabs, and the scarab's features (below, §IIIB) argue for its Canaanite origin, and thus for occasional imitations of this Middle Kingdom design on early Canaanite scarabs.

§IIIA 9. Design class 9 – Animals and heraldic beasts

As demonstrated above (§IIA 9), the Second Intermediate Period Egyptian/Nubian series yielded a significant number of scarabs bearing design class 9, hence the frequent consideration of this design as "Hyksos" (Ward 1987: 526). Yet, the number and distribution of scarabs bearing identical designs in the Palestinian series, and the Levantine affinity of many of these designs argue for the Canaanite origin of most examples found in Egypt. The popularity of design class 9 in the Palestinian series is reflected in the plates assembled by Tufnell (1984: Pls. 36-41). Nevertheless, both Tufnell (1984: 132) and Ward (1987: 526) note the complete absence of design class 9 in the early series, and its initial occurrence in group III at Jericho and contemporary contexts at other sites.

As noted by Tufnell and Ward, no examples are attested in the published corpus of the early series, yet Keel presents a small group of scarabs depicting a griffin with typical early Canaanite misrendered signs in the background (1995a: 200-201, § 551). The published features of these examples: one from tomb B35 at Jericho (**Pl. 62: 24**),⁷¹⁰ one from Tel Dan (**Pl. 62: 25**), one from Tell el-`Ajjul (**Pl. 62: 26**), and two unprovenanced examples (**Pl. 62: 27-**

⁷⁰⁸ It should be noted that the assigning of this Jericho scarab to the early series is questionable (see design class 2A above).

⁷⁰⁹ From Tell el-`Ajjul, see Keel 1995a: 82, §199; 1997: 368-69, no. 776.

⁷¹⁰ As noted above (introduction to chapter III), this tomb yielded additional scarabs displaying early-series characteristics (Kirkbride 1965: Fig. 292: 2, 3, 7, 9, 10, 14, 15, 18).

28) support an early MBIIB origin for this group (below, §IIIB).⁷¹¹ These examples argue for assigning most scarabs depicting a griffin to the early phase of scarab production in Palestine although none originated in a context assigned to the early series. Unlike most other designs attested on early Canaanite scarabs, which are inspired from late Middle Kingdom scarabs, the griffin is not attested on Egyptian scarabs of the early or late Middle Kingdom. Keel notes correctly that the type of griffin depicted on Canaanite scarabs is not likely to have been inspired from Syrian cylinder seals (See Teissier 1996: 148-50) and suggests direct influence from Egypt, possibly from media other than scarabs, e.g., the apotropaic ivory wands (Keel 1995a: 200-201, §551). Considering the occurrence of other demon-like figures both on the ivory wands and on late Middle Kingdom scarabs (above, §IA 9), the possibility of late Middle Kingdom scarabs depicting griffins, which may have inspired its occurrence on early Canaanite scarabs should not be ruled out. Their absence in the published corpus of late Middle Kingdom designs could be attributed to accident of survival.

Keel (2004: 95, Fig. 83) also notes a scarab from Tell el-`Ajjul displaying a crouching lion and two kneeling human figures (Pl. 62: 29),⁷¹² and a unique scarab from Megiddo depicting a deer (Pl. 62: 30), both displaying distinctive early Canaanite features (below, §IIIB) and misrendered signs, which argue for an early MBIIB origin (Keel 2004: 87, 95, Figs. 53, 83). These scarabs and those depicting griffins argue that the small published corpus of the early series does not necessarily reflect the occurrence and/or popularity of every design. No parallel for the deer depicted on the Megiddo scarab is known and its source of inspiration cannot be determined. Unlike the deer, the popularity of the lion is well attested in the late series, as indicate the plates assembled by Tufnell (1984: Pl. 40). The source of inspiration for the lion on Canaanite scarabs is not entirely clear and probably consists of Egyptian as well as Levantine prototypes (below, §IVA 9d). The examples presented above argue that scarabs displaying design class 9 were produced, though in small numbers and limited types, already in the early phase of scarab production in Palestine. Future excavations will hopefully reveal additional examples.

A scarab assigned to stratum XIII at Megiddo depicting a lion (Loud 1948: Pl. 149: 2) came from a spot that contained no pottery and its association with stratum XIII is uncertain (Tufnell 1973: 79). As most subclasses of design class 9 are absent in the early series, they are discussed below in association with the late series.

§IIIA 10. Design class 10 – Human and mythical figures

Like figurative designs depicting animals, those depicting human and mythical figures are attested mainly in the late series, but unlike in the case of animals, examples depicting human figures occur already in the early series (Ben-Tor 1997: 181-83). Tufnell's subdivision of design class 10 considers the posture, number, and form of the figures, as well as the emblems held in their hands, reflecting primarily the numerous variations attested in the late series (1984: 134-38, Pls. 42-48). The early series yielded a relatively small number of examples and variations, consisting of four scarabs from Jericho (Kirkbride 1965: Fig. 282: 11, 20, Fig. 288: 13, Fig. 293: 11), six from Megiddo (Tufnell 1973: Figs. 1-2: 14, 50, 61, 66; Guy 1938: Pl. 106: 8, 9), two from Tel Aviv Harbor (Tufnell 1984: 55, Fig. 16: 9, 12), two from Ginnosar (Givon 1978b: Fig. 43: 7, 8), and one from the courtyard cemetery at Tell el-`Ajjul (Keel 1997: 206-207, no. 306).⁷¹³ Examples displaying design class 10 with early Canaanite characteristics were found in later contexts at Jericho (Kirkbride 1965: Fig. 301: 7, 8), Lachish (Tufnell 1958: Pl. 36: 235), Acco (Keel 1997: 543-545, nos. 37, 40),⁷¹⁴ and Tell el-`Ajjul (Keel 1997: 282-469, nos. 519, 832, 1065). The scarabs listed above depict exclusively human figures, usually one and occasionally two figures in various postures (below). All these examples display distinctive early Canaanite features (below),⁷¹⁵ and some display also early Canaanite misrendered signs in the background as in the case of the griffin scarabs (above).⁷¹⁶ Considering the limited variations of design class 10 in the early series the discussion below follows only Tufnell's four main subclasses: 10A-D.

⁷¹¹ For an additional example from Tell Beit Mirsim see Rowe 1936: Pl. 5: 182.

⁷¹² The scarab displays a combination of design classes 9 and 10.

⁷¹³ One example was found in the 1997-1998 season at Rishon Leziyyon (A2731-7693).

⁷¹⁴ And possibly no. 39, which displays an almost identical design to one of the Tel Aviv Harbor examples (Tufnell 1984: 55, Fig. 16: 12), but highly unusual features.

⁷¹⁵ The only exception is the Jericho examples made of amethyst (Kirkbride 1965: Fig. 288: 13), which was most probably imported from Egypt as a plain scarab and later decorated locally (Ben-Tor 1997: 185). For similar examples see Tufnell 1984: 40, Fig. 15: 7, 9, 12.

⁷¹⁶ One of the Jericho scarabs (Kirkbride 1965: Fig. 301: 8), both scarabs from Ginnosar (Givon 1978b: Fig. 43: 7, 8), the scarab from Rishon Leziyyon (Field no. A2731-7693), the scarab from Lachish (Tufnell 1958: Pl. 36: 235), the scarab from Acco (Keel 1997: 545, no. 40), and one of the Tell el-`Ajjul scarabs (Keel 1997: 389, no. 832). See also Keel 2004: Figs. 65, 68-71, 79-86, 91-92.

§IIIA 10a. Design class 10A – Standing figures

Three of the examples listed above depict a human figure standing next to misrendered signs displayed in a vertical line (Pl. 63: 1-3). One depicts the figure holding a flower (Pl. 63: 2),⁷¹⁷ one depicts it holding a branch (Pl. 63: 1), and one depicts a flower along the frame of the base surface behind the misrendered signs (Pl. 63: 3). Scarabs depicting a human figure standing next to a line of misrendered signs were most probably inspired, as convincingly argued by Keel (1994: 213-20; 1995a: 206, §566), from late Middle Kingdom private-name scarabs bearing the image of their owner (Ben-Tor 1997: 181-83; above, §IA 10). As demonstrated above (§IIA 10a), the earliest Canaanite imitations of this design occur on scarabs produced in the local workshop at Tell el-Dab`a dating from the final phase of the late Middle Kingdom (Pl. 30: 7, 16). Some of the figures on the late Middle Kingdom prototypes are depicted holding a flower (Pl. 19: 41, Pl. 20: 3, 5), and it was therefore argued (Ben-Tor 1997: 181-83) that these images probably inspired those of human figures holding flowers on Canaanite scarabs, although most examples come from the late series (below).

The branch, which is not attested on Egyptian Middle Kingdom scarabs (see design class 1E), represents a local development inspired from the Levantine cultural sphere (Keel 1995a: 204, §561). The mixture of Egyptian and Levantine iconographic traditions, a primary characteristic of Middle Bronze Age Canaanite scarabs, is attested in the early series especially in examples displaying design class 10. The strong Egyptian influence on the iconography of design class 10A is manifested in the figures' depiction in profile with their chest in frontal view, their striding posture, their wigs and kilts, some of the attributes held in their hands, and the hieroglyphs depicted in the background of many examples. The design, however, displays clear Levantine affinities, which are manifested in attributes like the toga-like garment worn by some of the figures, and the branch held by others (Keel 1995a: 204, 207).

The scarab from Tell el-`Ajjul depicting a male figure with a uraeus at his brow and holding a large flower (Pl. 63: 6) may have been inspired by the late Middle Kingdom scarabs depicting the king in a striking posture holding a large lotus flower (Pl. 20: 11-13). Unlike the late Middle Kingdom scarabs, the Tell el-`Ajjul example does not depict the figure in a striking posture but with his hand hanging down alongside the body. Yet, like the late Middle Kingdom examples, which depict a large *ꜥnḥ* between the king and the flower, the Tell el-`Ajjul scarab depicts a large *nfr* sign. This scene on the Tell el-`Ajjul scarab could have been inspired just as likely by Syrian cylinder seals depicting male figures in the attire of the Egyptian king holding a large flower or scepter (Teissier 1996: 124-27). A male figure wearing the red crown and holding a small flower is depicted on one of the Megiddo scarabs listed above (Pl. 63: 7). The source of inspiration for this scarab is also uncertain, and both late Middle Kingdom private-name scarabs and Syrian cylinder seals are possible. Whether male figures depicted in royal Egyptian attire represent the Egyptian king is uncertain in the case of Syrian cylinder seals (Teissier 1996: 178-79) and is not very likely in the case of Canaanite scarabs.

Local developments on early Canaanite scarabs displaying design class 10A that can be attributed to inspiration from Syrian cylinder seals include the hair lock representing youth, which is depicted on two of the Jericho examples (Pl. 63: 8-9).⁷¹⁸ One of the figures (Pl. 63: 9) is depicted with raised hands in a posture suggesting dancing, which is not attested on Egyptian Middle Kingdom scarabs but occurs on two Canaanite scarabs of unknown provenance displaying early characteristics (Pl. 63: 10-11). Keel argues convincingly that these dancing postures display the figures performing rituals associated with Levantine cults (1990: 173-81; 1995a: 206, §567). He also includes in this group of Levantine cult-associated postures those depicting the figures with one raised hand in greeting or veneration, as on the other Jericho example (Pl. 63: 8), and the examples from Acco (Pl. 63: 12), Lachish (Pl. 63: 13), and Ginnosar (Pl. 63: 14). The latter depicts the figure standing on a podium of a shape frequently attested as a decorative motif on early Canaanite scarabs, and most probably inspired from the Levantine cultural sphere (Ben-Tor 1997: 184-85). The Levantine affinity of this podium is supported by its depiction in association with figures wearing the toga-like garment (Schroer 1985: 81, Fig. 41a, 42), the customary attire of Levantine rulers in the Middle Bronze Age (Schroer 1985; below, §IV 10a).

⁷¹⁷ The flower resembles a *w3s* scepter, as does the flower on the almost identical example from unclear context at Acco (Pl. 63: 4). Keel considers both examples as a *w3s* scepter (Keel 1997: 544, no. 39), but another example from unclear context at Acco depicting an almost identical design clearly depicts a flower (Pl. 63: 5). Moreover, the alternation/confusion between a flower and the *w3s* scepter in the hands of mythical figures is well attested on Canaanite scarabs in the late series (Keel 1989: 260-66). Considering the likely inspiration of these scarabs from late Middle Kingdom private-name scarabs, they more likely depict a flower rather than a *w3s* scepter.

⁷¹⁸ See Teissier 1996: 142-43.

§IIIA 10b. Design class 10B – Two or more figures standing or kneeling

The early series include only four scarabs depicting scenes comprising two figures, one from Jericho (Pl. 63: 15) and three from Megiddo (Pl. 63: 16-18). An additional example displaying early Canaanite characteristics was found in a later context at Tell el-ʿAjjul (Pl. 63: 19). The Jericho scarab depicts two male figures standing facing each other, the figure on the left presenting a bowl to the figure on the right whose hand is raised in a greeting posture. As noted above, this amethyst scarab was most probably imported with a blank base and later engraved by Canaanite artisans. Schroer (1985: 8-92) and Keel (1995a: 220, §599) present evidence from Syrian cylinder seals placing the scene engraved on this scarab in the context of rituals associated with the Levantine cultural sphere.

Two of the Megiddo scarabs depict standing couples – a man and a woman (Pl. 63: 16-17). One of these scarabs depicts the couple embracing (Pl. 63: 16), the man wearing the toga-like garment of the Levantine rulers. The Canaanite origin of the toga-like garment and the source of inspiration for its occurrence on Middle Bronze Age scarabs from Syrian cylinder seals, were conclusively demonstrated by Schroer (1985). The Megiddo scarab is the earliest recorded example depicting a male figure wearing the toga-like garment; all other examples come from the late series (below), usually depicting the figure standing alone, with hieroglyphs or misrendered signs (Tufnell 1984, Pl. 43). The other Megiddo scarab depicts the couple facing each other on either side of a large *ḥr* sign enclosed in an oval ring, raising their hand in a greeting posture (Pl. 63: 17). The erotic connotation of both scenes depicted on the Megiddo scarabs was noted by Schroer (1985: 94-101) and Keel (1995a: 218-19, 223, §595, §605), who present evidence from Syrian cylinder seals indicating the inspiration for both scarabs came from the Levantine cultural sphere. Levantine inspiration is also suggested for the scene depicted on the third Megiddo example (Pl. 63: 18); two figures seemingly of the same gender, kneeling on either side of a large lotus flower, both depicted with one arm outstretched holding the flower (Keel 1989: 252-57; 1995a: 223-24, §606). The scarab from Tell el-ʿAjjul depicting a recumbent lion (see design class 9) above two kneeling figures facing each other and holding a flower (Pl. 63: 19) is associated with the same cultural context (Keel 1995a: 223-24, §607). This scarab displays a combination of design classes 9 and 10, which is frequently attested in the late series (below, §IVA 9-10).

§IIIA 10c. Design class 10C – Kneeling figures

Seven scarabs depicting a single kneeling human figure occur in the early series, two from Jericho (Pl. 63: 20-21), two from Megiddo (Pl. 63: 22-23), one from Tel Aviv Harbor (Pl. 63: 24), one from Ginnosar (Pl. 63: 25), and one from the courtyard cemetery at Tell el-ʿAjjul (Pl. 63: 26). Three depict the kneeling figures holding a flower (Pl. 63: 24-26), three depict them holding a branch (Pl. 63: 20-21, 23), and one depicts the figure empty handed (Pl. 63: 22). Four of these examples (Pl. 63: 20, 22, 25-26) depict the figures in a half-kneeling posture (Keel 1995a: 227, §614) attested also on Syrian cylinder seals (Teissier 1996: 169, nos. 31, 174, 237). One of the Jericho scarabs (Pl. 63: 20) depicts a highly unusual form of the branch, which like the figure's posture is also attested on Syrian cylinder seals (Teissier 1996: 170, no. 244). The kneeling posture, typical of Egyptian iconography, occurs also on Syrian cylinder seals (Teissier 1996: 114, 169, nos. 15, 37, 86, 236). Yet, single kneeling figures holding a flower or branch are not attested on Middle Kingdom scarabs or Syrian cylinder seals. Their occurrence on early Canaanite scarabs therefore represents a local development possibly inspired by standing single figures and paired kneeling figures holding flowers or branches (above).

§IIIA 10d. Design class 10D – Goddess

Tufnell's subdivision of this design into 10D1 – standing nude goddess, and 10D2 – "Hathor" symbol (1984: 138, Fig. 48) is followed below. Both subclasses are absent in the early series, yet, there is evidence suggesting their initial occurrence in the early phase of Canaanite scarab production.

§IIIA 10d1. Design class 10D1 – Goddess standing, nude

The non-Egyptian origin of the design depicting a nude female figure in frontal view is evident and was also noted by Tufnell (1984: 138). Moreover, the exhaustive study of Schroer (1989: 92-138) presents conclusive evidence for the Canaanite origin of the scarabs displaying this motif in the Palestinian series and their source of inspiration in Syrian cylinder seals. Like the male figure wearing the toga-like garment (below, §IVA 10a), the nude goddess constitutes one of the most distinctive Levantine motifs on Middle Bronze Age scarabs (Keel 1995a: 210, §574), and the Canaanite production of scarabs displaying both these motifs is now largely recognized (Ward and Dever 1994: 120).

Although occurring exclusively in the late series, the nude goddess is depicted on a scarab from Beth Shemesh displaying all the characteristics of the Omega group (Pl. 63: 27), which argue for assigning it to the early MBIIB. This unique scarab depicts the figure with the head turned to the left, wearing a tall hat or a hairstyle of a type that

is not attested on other scarabs but is known from Syrian cylinder seals (Schroer 1989: 95, Fig. 05). Schroer compares the unclear objects flanking the figure on the Beth Shemesh scarab with plants held by the nude goddess on Syrian cylinder seals, which constitute the prototype for the branches flanking the goddess on most Canaanite scarabs (Schroer 1989: 95, Fig. 06). A scarab from group IV at Jericho (PI. 63: 28) was recently presented by Keel (2004: 91, Fig. 68) as displaying early Canaanite features (below, §IIIB). This scarab depicts the nude goddess in a unique form with large twisted horns, but with the customary large ears and a branch on either side (Schroer 1989: 98-99). These Beth Shemesh and Jericho examples argue for the initial occurrence of this distinctive Levantine motif on Canaanite scarabs in the early phase of scarab production in Palestine.

§IIIA 10d2. Design class 10D2 – "Hathor" symbol

Unlike the nude goddess, the "Hathor" symbol is clearly an Egyptian symbol with a long history on Egyptian design amulets (Schroer 1989: 146-53; above, §IA 10). Nevertheless, Schroer convincingly demonstrates the Canaanite origin of scarabs depicting the motif in the Palestinian series (1989: 139-46). The Canaanite variations of the symbol differ from the Egyptian prototypes both in the presentation of the symbol and in the motifs associated with it. The cow's horns topping the Egyptian symbol are usually replaced by floral motifs, and the signs and symbols flanking the symbol differ considerably between the late Middle Kingdom and the Palestinian scarabs.⁷¹⁹ Moreover, this originally Egyptian motif is closely associated with the nude goddess on Middle Bronze Age Canaanite scarabs, which display its assimilation into the Levantine cultural sphere (below, §IVA 10d1).

As in the case of the nude goddess, the Hathor symbol is attested almost exclusively in the late series (below). However, unlike in the case of the nude goddess, this motif was most probably first imitated on Canaanite scarabs in the local workshop at Tell el-Dab`a (PI. 41: 4-5), which makes sense considering the Egyptian origin of this symbol and its occurrence on late Middle Kingdom scarabs. As noted above, one of the Tell el-Dab`a examples displays features of the early local workshop (PI. 31: 11) and comes from stratum E/3 at the site, which corresponds with the early MBIIB in Palestine (Bietak 1997: 90).⁷²⁰ The only example from Palestine attributed to the early MBIIB comes from tomb 49 at Dhahrat el-Humraiya (PI. 63: 29). This scarab displays the symbol with a symmetric arrangement of hieroglyphs, which is not attested on other examples of design class 10D in the Palestinian series. It is interesting to note, however, that the signs associated with the symbol on this scarab include two *nfr* signs, which rarely occur on Canaanite scarabs bearing the design but are associated with the symbol on late Middle Kingdom examples (PI. 19: 19-20).⁷²¹ Another possible early example is a scarab from group III at Jericho (PI. 63: 30). The published features of this scarab display early Canaanite characteristics that argue for a likely early MBIIB origin (below, §IIIB), which is supported by the two *nfr* signs flanking the symbol. Keel presents another example from group III at Jericho displaying early features, which depicts the Hathor symbol next to a falcon (PI. 63: 31).⁷²²

§IIIA 10e. Design class 10E – Human figures, enthroned

The greeting posture noted above in association with standing human figures is attested also on a small group of scarabs depicting an enthroned male figure wearing the Levantine toga-like garment or an Egyptian-style kilt (Schroer 1985: 84-88, Figs. 45-48, 54-55; Keel 1994: 132, Figs. 65-67; 1995a: 229). Tufnell does not include this group in her typology, and Keel categorizes it under design class 10E – enthroned figures, which is followed here. The only example of this type displaying distinctive early characteristics is one of the Tell el-`Ajjul scarabs noted above (PI. 64: 1).⁷²³ The garment worn by this figure is not entirely clear and more likely depicts an Egyptian-style kilt and a collar necklace rather than the toga-like garment, and there is a uraeus at his brow. The Levantine inspiration for this group, whether depicting the enthroned ruler wearing the toga-like garment or an Egyptian style kilt is convincingly demonstrated by Schroer (1985: 85-88). It is interesting to note, however, the Egyptian royal attire and uraeus on this early example; the latter is not attested on any of the other examples, which originated exclusively in the late series (below, §IVA 10e).

⁷¹⁹ Compare the late Middle Kingdom Egyptian examples in Schroer 1989: 151, Figs. 080-084 with the Canaanite examples in Figs. 085-096.

⁷²⁰ The scarab displays features of Mlinar type III that first occur in stratum G during the late Middle Kingdom (above, §IIb 5c), and therefore may be earlier than the context in which it was found.

⁷²¹ It is also attested on an example displaying the Canaanite form of the symbol from an unclear context at Tell el-Dab`a (PI. 41: 5).

⁷²² See Keel 2004: Fig. 78.

⁷²³ Keel 1997: 280-81, no. 519; 2004: Fig. 71. See also Schroer 1985: 85.

IIIB. Typology of Features

Distinctive features of early Canaanite scarabs were recently presented by Keel (2004), who distinguishes three main groups based on the published corpus of the Palestinian series. Keel characterizes the groups according to their head types as the B2-head group, the D-head group, and the A-head group (2004: 81-98).

§IIIB 1. B2-head group

The B2-head group displays an hourglass-shaped head (Tufnell 1948: 32)⁷²⁴ almost exclusively in combination with e9 or e10 sides (Keel 2004: Figs. 33-62). The back types attested in this group are always stylistic (Ward and Dever 1994: 164-65), displaying plain as well as lined backs (Pl. 64: 1-18, Pl. 65: 1-17, Pl. 66: 1-9),⁷²⁵ sometimes decorated with flowers (Pl. 66: 10, 12-15, Pl. 67: 9), spirals (Pl. 66: 10-11, 16-18, Pl. 67: 1-3), or crosshatching (Pl. 67: 4-7, 11). The ratio between plain and lined backs is about 2 to 1 in favor of plain backs. Most scarabs of this group are small, displaying an average length of 1.4 cm, and the relation between their length and height makes them look somewhat flat. The most common design classes in the B2-head group are 3A3 (Pl. 64: 1, 6, 9, 14, Pl. 65: 11, 13-15, Pl. 66: 12-13, 16, Pl. 67: 1-2, 5, 7), and 3A4 (Pl. 64: 3-4, 7, 15, 18, Pl. 65: 1-2, 6-7, Pl. 66: 1, 6-8, 10, 15, 18), both featuring a large number of misrendered signs. The group also displays design classes 3B (Pl. 64: 10, 16, Pl. 65: 3-4, 8-10, Pl. 66: 3, 9, 11, 14, 17, Pl. 67: 3), 3C (Pl. 64: 8, Pl. 65: 3, 9, Pl. 67: 10), 3D (Pl. 65: 3, 9), 4 (Pl. 64: 5, 11, Pl. 65: 12, 17, Pl. 66: 2, 4, Pl. 67: 6), 5 (Pl. 64: 2, 5, 11-12, 17, Pl. 65: 5, Pl. 66: 5), 7 (Pl. 64: 13), 8 (Pl. 64: 8, 18, Pl. 65: 6, Pl. 67: 1), 9 (Pl. 65: 16), and 10 (Pl. 64: 8, Pl. 67: 8-10). It is interesting to note a scarab of the B2-head group with a crosshatched back from Beth Shan (Pl. 67: 11), which Ward erroneously considers as a contemporaneous royal-name scarab of Senwosret II (Tufnell 1984: Pl. 52: 3037).

Keel notes the prevalence of the B2-head group in the early series and the extremely rare occurrence of scarabs of this type in the late series (2004: 92-93). The largest groups come from Jericho and Megiddo, and examples are also attested at Rishon Leziyyon, Ain Samiya, Tel Aviv Harbor, Gibeon, Tell el-Far`ah (N), Beth Shemesh, and Ginnosar. Keel further notes that scarabs of the B2-head group are often found in similar contexts as scarabs of the Omega group, as for example in the cemeteries of Rishon Leziyyon, Gibeon, Beth Shemesh, and Tell el-Far`ah (N). The number of B2-head scarabs in tombs B3, B35 and A35 at Jericho (Kirkbride 1965: Figs. 292, 293) argues for the likely continuation of this group into early group III at the site. The distribution of scarabs of the B2-head group in the Palestinian series indicates that the small number of examples found in the late series⁷²⁶ most likely constitute heirlooms.

§IIIB 2. D-head group

The D-head group, displaying trapezoid heads of types D2 – D6 (Tufnell 1984: 32), comes from similar archaeological contexts as the B2-head group, and shares characteristics with the latter in designs as well as features (Keel 2004: 93-98). The trapezoid head itself is usually depicted as the lower part of an hourglass-shaped head (e.g. Pl. 68: 12) or inside it (e.g. Pl. 68: 13). Like the B2-head group, the D-head group displays almost exclusively e9 and e10 side types. It also displays stylistic back types, plain (Pl. 67: 12-17, Pl. 68: 2, 4-9, 11-14, 16-18, Pl. 69: 1-3, 6-9, 11-13, 15-17) as well as lined (Pl. 68: 1, 3, 10, Pl. 69: 4-5, 10, 14), sometimes decorated with flowers (Pl. 70: 1-4), branches (Pl. 70: 5-6), spirals (Pl. 70: 7-10), or crosshatching (Pl. 70: 11-14). As in the case of the B2-head group the ratio between plain and lined back in this group is in favor of plain backs. The D-head group displays an average length of 1.6 cm, slightly larger than the B2-head group, and frequently bears similar but more elaborate variations of the designs attested in the B2-head group. The design classes attested in this group include 3A3 (Pl. 67: 15-16, Pl. 68: 3, 14, Pl. 69: 6, 10, Pl. 70: 2, 4, 14), 3A4 (Pl. 68: 1, 5, 7, 13, Pl. 69: 8, 12, Pl. 70: 7), 3B (Pl. 67: 12, 17, Pl. 68: 6-8, 13, 15-16, Pl. 69: 5, 12, Pl. 70: 8), 3C (Pl. 67: 12, 17, Pl. 68: 4, 6, 8, 11, 16-17, Pl. 69: 1, 7, 13, 15, 17, Pl. 70: 9, 11), 3D (Pl. 67: 12, Pl. 68: 16, Pl. 70: 11), 3E (Pl. 68: 6-7, 17, Pl. 69: 7, 15), 4 (Pl. 68: 2, 12, Pl. 70: 1, 5, 6, 10), 5 (Pl. 68: 10, Pl. 69: 14, Pl. 70: 6, 10, 13), 6 (Pl. 67: 14), 7 (Pl. 69: 13, Pl. 70: 9), 8 (Pl. 67: 14, Pl. 68: 5), 9 (Ilan 1996: Fig. 4.98: 5; Keel 1997: 269, no. 491), and 10 (Pl. 67: 13, Pl. 68: 9, Pl. 69: 2-3, 11, 16, Pl. 70: 3, 12). The distribution of these designs in the D-head group differs from their distribution in the B2-head group; design classes 3A3 and 3A4 do not constitute the dominant designs, and the group displays a larger number of examples bearing design class 3C, and figurative motifs (design classes 9, 10).

⁷²⁴ Some examples displaying variations with eyes defined as B3 (Tufnell 1984: 32).

⁷²⁵ Many examples were found in Rishon Leziyyon (9/92 3092, 9/92 2184, 9/92 3210, 9/92 2099, 9/92 3116, 9/92 2895, 9/92 2860, 9/92 3157, 9/92 2645, 9/92 2784, 9/92 3116), but drawings of their features are not yet available and they will be published elsewhere. This is also the case with the D-head and A-head groups (below).

⁷²⁶ See e.g. Keel 1997: 301- 489, nos. 582, 926, 984, 1125 from Tell el-`Ajjul; Tufnell 1958: Pls. 32, 34: 112, 186 from Lachish. Not a single example was found at Tell el-Far`ah (S).

Trapezoid heads of the types occurring in the D-head group are not exclusive to the early series, and it is therefore the combination of these heads with the e9 or e10 sides and with distinctive early designs and back-decorations, which defines this group. The distribution of scarabs displaying characteristics of the D-head group suggests a larger chronological range than that of the B2-head group and its continuation into the late series with some new variations.⁷²⁷ Nevertheless, as in the case of the B2-head group, examples displaying a combination of distinctive early characteristics from late contexts most probably constitute heirlooms.⁷²⁸

§IIIB 3. A-head group

The A-head group displays lunate heads (Tufnell 1984: 32) and naturalistic lined backs (**Pl. 70: 15-17, Pl. 71: 1-18, Pl. 72: 1-7**), more elaborate in appearance than the schematic back types of the B2-head and D-head groups. As in the case of the latter groups the A-head group occasionally displays decorated backs, with flowers (**Pl. 71: 3, 16, Pl. 72: 1**) and more frequently with spirals (**Pl. 71: 4-10, 12, 16-18, Pl. 72: 1-2, 4**), and the side types associated with this group are almost exclusively e9 and e10. Crosshatched backs are not attested in this group, and the average size is similar to that of the D2-head group. Unlike the schematic back types of the B-head and D-head groups, which differ from the back types attested on late Middle Kingdom scarabs, the elaborate back types of the A-head group simulate late Middle Kingdom prototypes.⁷²⁹ The A-head group does not include as many examples as the other groups but it displays similar types of early Canaanite misrendered signs (**Pl. 70: 16, Pl. 71: 2-4, 7, 9, 11-12, 14, 16-17, Pl. 72: 2, 4-5, 7**). The most frequently attested designs are 3C (**Pl. 71: 3, 7, 12, 14, 17, Pl. 72: 4-5**), 4 (**Pl. 71: 1, 5-6, 8, 11, 15, Pl. 72: 1**), and 3E (**Pl. 71: 3, 12, 14, Pl. 72: 4-5**); the group also displays design classes 3B (**Pl. 70: 17, Pl. 71: 2, 4, 7, 13, 17**), 5 (**Pl. 71: 1, 6, 8**),⁷³⁰ 6 (**Pl. 71: 18**), 7 (**Pl. 71: 10**), and the figurative designs 9 (**Pl. 71: 9**) and 10 (**Pl. 70: 15, Pl. 72: 2**). Design class 3A4 is attested (Keel 2004: Figs. 65-67) but is far less common compared with the other two groups. The distribution of the A-head group suggests a chronological range similar to that of the B2-head group with a likely continuation into the phase manifested in early group III at Jericho. As in the case of the other groups, the few examples from later contexts are most probably heirlooms (**Pl. 72: 1-7**).

Summary

The three groups discussed above display the most distinguishing features of scarabs of the early Palestinian series, which rarely continue into later phases of the Middle Bronze Age. As demonstrated above, the scarabs comprising these groups share many characteristics in their designs, features, and back decorations. There is, however, a significant distinction: while the B2-head and A-head groups rarely continue beyond the chronological range of the early series, the features associated with the D-head group are attested also in the late series, where they occur with new design variations (above). Moreover, while the B2-head and A-head groups are almost completely absent in Egypt, including in the eastern Delta,⁷³¹ examples displaying characteristic features of the D-head group are so common at Tell el-Dab`a they were categorized by Mlinar as type IV (above). Their distribution at Tell el-Dab`a is between strata E2 and D3, most examples occurring in strata E2 and E1 (Mlinar in Bietak et al. 2001: Fig. 7; Mlinar 2004: Fig. 15). As these strata postdate the chronological range of the early Palestinian series, the scarabs displaying features of the D-head group at Tell el-Dab`a support the continuation of these features into the late series. The Tell el-Dab`a examples display a handful of distinctive early Palestinian designs (Mlinar 2001, nos. 306, 402, 510, 1066, Mlinar 2002: 229, no. 5), which most probably constitute heirlooms, and a majority of designs supporting a slightly later date.

In addition to the three types distinguished by Keel, the early series include also scarabs displaying naturalistic plain backs with d5 or d6 sides and B5, B6 or A4, A6 heads (**Pl. 72: 8-16, Pl. 73: 1-6**).⁷³² Like the three groups discussed above, these scarabs display misrendered signs (**Pl. 72: 9, 11-12, Pl. 73: 1-2, 4, 6**), and design classes 3A4

⁷²⁷ E.g. Petrie 1930: Pl. 10: 73; Starkey and Harding 1932: Pl. 43: 9, 13 from Tell el-Far`ah (S); Tufnell 1958: Pl. 30: 15, 16, 47, 64 from Lachish; Kirkbride 1965: Fig. 295: 5, 20 from Jericho; Keel 1997: 121-343, nos. 49, 277, 669, 699, 705 from Tell el-`Ajjul.

⁷²⁸ E.g. Tufnell 1958: Pl. 30: 26, 48 from Lachish; Keel 1997: 207-479, nos. 399, 563, 638, 820, 856, 1065, 1095 from Tell el-`Ajjul; Mizrachi in Kempinski 2002: Fig. 9.4: 28 from Kabri.

⁷²⁹ See Martin 1971: Pl. 53 types 6l, 6p, 6t, and compare the late Middle Kingdom and A-head type scarabs from Lachish presented, respectively, in Tufnell 1958: Pl. 32: 107, 108.

⁷³⁰ Always in combination with design class 4.

⁷³¹ Only one example of the B2-head group was found at Tell el-Dab`a in stratum E/1-D/3 (Mlinar 2001, no. 6140), undoubtedly constituting an heirloom, and not a single example of the A-head group is attested at the site.

⁷³² Examples were also found in Rishon Leziyyon (9/92 2558, 9/92 2618, 9/92 2792).

(Pl. 73: 6), 3B (Pl. 72: 12, 16), 3C (Pl. 72: 9, 11-12, Pl. 73: 4, 6), 3E (Pl. 72: 11, Pl. 73: 1-2, 4), 4 (Pl. 72: 14-15), 7 (Pl. 72: 8, Pl. 73: 5), and 8 (Pl. 72: 10). Unlike the three groups distinguished by Keel, scarabs displaying the latter combination of features occur throughout the Middle Bronze Age,⁷³³ and early examples are only indicated by distinctive early designs or secure archaeological contexts.

⁷³³ A significant number of examples displaying this combination of features come from groups IV-V at Jericho (Kirkbride 1965, Figs. 295-300). For examples displaying distinctive late Middle Bronze Age designs see e.g. Petrie 1930, Pl. 7: 27, 50 from Tell el-Far'ah (S); Keel 1997: 197-315, nos. 278, 625 from Tell el-'Ajjul.

Chapter IV

The Late Palestinian Series

The scarabs discussed in this chapter come from contexts assigned to the later phases of the Middle Bronze Age, which are generally referred to as the MBIIB-C. The terminology used for this period is not consistent; some scholars consider it as one continuous period (MBIIB), while others divide it into two phases (MBIIB–MBIIC or MBII–MBIII).⁷³⁴ Among the latter are Ward and Dever who categorized the scarabs of the late series under Periods IV and V, corresponding more or less to their division of the period into MBII and MBIII (Ward and Dever 1994: 6, 32-37, 120-31). Based on the high chronology they propose for the Middle Bronze Age phases⁷³⁵ these scholars date period IV mainly to the 13th Dynasty possibly continuing into the early 15th Dynasty, and period V as largely contemporary with the 15th Dynasty (Ward and Dever 1994: 6, 121). As in the case of the early series discussed above Ward and Dever's division of the late series into two groups and their suggested dates are not supported by the evidence. The discussion in this study therefore treats the time span under discussion as one continuous period and refers to it as the later MBIIB, the early series representing the early MBIIB (above, introduction to chapter III). It will be demonstrated below that the scarabs assigned to periods IV and V display an identical stylistic profile,⁷³⁶ and their division into two groups is, as in the case of the early series, artificial, forcing the material into a preconceived chronological scheme. Taking into account the evidence from Tell el-Dab`a the chronological scope of the late series differs considerably from that suggested by Ward and Dever, covering in fact the period between ca. 1630 and 1500 BCE, i.e. contemporary with the 15th Dynasty and the early 18th Dynasty in Egypt (Bietak 1991: 55-57). Supporting evidence for the low chronology is presented in the discussion below.

As noted above, the number of scarabs assigned to the late series is far greater than that of the early series, indicating the increasing production of scarabs in the southern Levant during the later phases of the Middle Bronze Age. These locally produced scarabs reflect the strong Egyptian cultural influence generated by the special political situation in Egypt when a large Canaanite population is settled in the eastern Delta and a dynasty of Canaanite origin rules over northern Egypt. Like the scarabs of the early series, scarabs of the late series display local imitations of most late Middle Kingdom designs, yet, they display also a significant number of designs inspired from the Levantine cultural sphere (Keel 1994: 208-25; below, §IVA 9-10). The latter provide the primary argument for the local production of the bulk of the material, which is also indicated by the number and distribution of these scarab types in Palestine in comparison with Egypt. The stylistic profile of the late series differs from that of the early series in designs as well as features. One of the most noted stylistic innovations of the late series is manifested in the engraving technique of hollowed-out figurative motifs sometimes decorated with cross-hatching (Ward and Dever 1994: 111). Unlike scarab types of the early series, which are almost completely absent in Egypt, those of the late series were found in Second Intermediate Period contexts throughout the Nile valley, from the eastern Delta in the north to Kerma in the south (above, §IIb).

As in the case of the early series, the great majority of scarabs of the late series were found in Middle Bronze Age cemeteries. The large corpus of the late series includes scarabs from most Middle Bronze Age sites in Palestine (Ward and Dever 1994: 25-87), yet as in the case of the previous chapters the discussion below refers mainly to type groups from sites that yielded the largest number of examples. These include the scarabs from groups III, IV, and V at Jericho (Kirkbride 1965; Tufnell 1984), cemeteries 500 and 1000 at Tell el-Far`ah (S) (Petrie 1930; Starkey and Harding 1932; Price Williams 1977; Tufnell 1984), and Tell el-`Ajjul (Petrie 1931; 1932; 1933; 1934; Petrie, Mackay and Murray 1952; Tufnell 1984; Keel 1997). Also included are the scarabs from Middle Bronze Age contexts at Lachish (Tufnell 1958) and Gezer (Macalister 1912; Rowe 1936; Giv'eon 1985). Examples from phases E, F, and G at Megiddo (Loud 1948; Tufnell 1973), Shechem (Horn 1962, 1966, 1973), Beth Shan (Rowe 1936), Kabri (Mizrachy in Kempinski 2002), and other sites are occasionally presented to confirm the occurrence or distribution of particular designs.

⁷³⁴ For a discussion of this issue, with bibliography, see Bietak 1991: 55; Dever 1992: 12-14; Ward and Dever 1994: 32-37.

⁷³⁵ Reflecting the chronological scheme generally accepted prior to the excavations at Tell el-Dab`a, which considered the MBIIA (MBI) as contemporary with the 12th Dynasty, the MBIIB (MBII) as contemporary with the 13th Dynasty, and the MBIIC (MBIII) as contemporary with the 15th Dynasty (see Bietak 1991: 53).

⁷³⁶ See Ward and Dever's discussion of the design scarab series (1994: 120-25), which in fact supports the division of the Palestinian corpus into early (periods IIA-III) and late (periods IV-V) series as suggested in this study.

Table 4 – Principal sites yielding scarabs of the late Palestinian series (arranged north to south)

Site	Late MBII occupations yielding Canaanite scarabs	Notes
Megiddo	Tombs assigned to Kenyon's phases E-G (Tufnell 1973; Ward 1987: 513-14; Ward and Dever 1994: 6)	Most scarabs found in these tombs display late Canaanite characteristics (Tufnell 1973: Figs. 2-3).
Jericho	Tombs assigned to Kenyon's groups III-V (Tufnell 1984: 67-83; Ward 1987: 513-14, 518-23; Ward and Dever 1994: 6, 107-11)	Most scarabs found in these tombs display late Canaanite characteristics (Kirkbride 1965: Figs. 290-303).
Gezer	Tombs and dwellings assigned to the late MBIIIB (Dever 1993: 500-501; Ward and Dever 1994: 28).	Most scarabs found at the site display late Canaanite characteristics (Macalister 1912: Pls. 31, 35, 202-208; Givon 1985: 110-23).
Lachish	Tombs assigned to the late MBIIIB (Tufnell 1958: 62-64, 92-106).	Most scarabs found in these tombs display late Canaanite characteristics (Tufnell 1948: Pls. 30-36).
Tell el-`Ajjul	Settlement and tombs assigned to the late MBIIIB (Petrie 1931; 1932; 1933; 1934; Petrie, Mackay and Murray 1923; Tufnell 1984: 8-23).	The largest corpus of Middle Bronze Age scarabs in Palestine (Tufnell 1984: 92-106; Keel 1997: 106-525), most of them displaying late Canaanite characteristics. The site also yielded the largest group of imported Second Intermediate Period Egyptian scarabs.
Tell el-Far`ah (S)	Cemeteries 500 and 1000 (Petrie 1930; Starkey and Harding 1932; Price Williams 1977; Tufnell 1984: 6).	Most scarabs found in these tombs display late Canaanite characteristics (Tufnell 1984: 86-92).

§IVA. Typology of Designs

The design typology of the late Palestinian series is based, as in the case of the groups discussed in the previous chapters, on Tufnell's ten design classes and various subclasses. The motifs and designs occurring in the late series are examined to establish their origin and point out distinctive developments that are not attested in the other groups.

§IVA 1. Design class 1 – Linear patterns

§IVA 1a. Design class 1E – Floral motifs

The most common floral motif on scarabs of the late series is, as in the case of the three groups discussed in the previous chapters, the three-stem papyrus plant that originated on Egyptian scarabs of the early Middle Kingdom (Ward 1978a: 53; above, §IA 1a). Like the early Canaanite examples (above, §IIIA 1a) scarabs of the late Palestinian series always display the motif with other designs, usually surmounting a central motif or flanking it above and below (Tufnell 1984: Pl. 3: *passim*). The Canaanite origin of these particular variations was argued above (§IIIA 1a), where it was also noted that most examples come from the late series. The latter yielded seven examples from Jericho (Pl. 74: 1-7), eight from Tell el-Far`ah (S) (Pl. 74: 9-15), four from Lachish (Pl. 74: 16-19),⁷³⁷ three from Gezer (Pl. 74: 20-22), two from Megiddo (Pl. 74: 23-24), and eight from Tell el-`Ajjul (Pl. 74: 25-32).⁷³⁸

The central motifs associated with the design in the late series display a mixture of Egyptian and Canaanite motifs. They usually depict symmetric arrangements of hieroglyphs, frequently with variations of design class 3C (Pl. 74: 1-3, 6-8, 10, 12, 25, 27, 32) as in the early series (Pl. 50: 3, 5, 7). They also display spirals (Pl. 74: 9, 11, 14), the sign of union (Pl. 74: 26),⁷³⁹ and the Canaanite version of the Hathor symbol (Pl. 74: 5, 30). A distinctive local development of the three-stem papyrus plant occurs in the Green Jasper group first defined by Keel (1989). Two of the examples assembled by Keel display variations of the three-stem papyrus (Pl. 74: 33, Pl. 50: 8).⁷⁴⁰ The Green Jasper group displays also other floral motifs, including the branch (Pl. 74: 34-36), and schematic flowers held by linear human figures or depicted next to them (Keel 1989: 219-21, Figs. 14, 15, 20).⁷⁴¹ The Canaanite origin of this group and its inspiration from a particular group of Syrian cylinder seals was convincingly argued by Keel (1989: 211-42) and is now generally accepted (Ward and Dever 1994: 118).

Four examples displaying the three-stem papyrus as dominant motif are presented by Tufnell, one from Jericho and three from Tell el-`Ajjul (Tufnell 1984: Pl. 3: 1072, 1095, 1098, 1101). It is important to note that no such examples are securely dated to the Second Intermediate Period in Egypt or in Palestine. The three Tell el-`Ajjul examples were correctly dated by Keel to the early 18th Dynasty on stylistic grounds (Keel 1997: 166-67, 358-59, 380-81, nos. 183, 748, 810), though only one of them is recorded with features; the latter display the most distinctive early 18th Dynasty characteristics (Keel 1997: 380-81, no. 810).⁷⁴² The Jericho example, a cowroid of the type associated with king Apophis (above, §IIB), comes from tomb G1 assigned by Kenyon to group V (Kirkbride 1965, Fig. 299: 20), and by Tufnell to group IV (1984: 73). The design occurring on this cowroid has its best parallels on early 18th Dynasty examples,⁷⁴³ which strongly argue for the early 18th Dynasty date and Egyptian origin of this object.⁷⁴⁴ The occurrence of an early 18th Dynasty import in tomb G1 argues against Tufnell's assigning it to group IV and supports Kenyon's original assigning to group V. Most important, the occurrence of this item in a Middle Bronze Age tomb supports the continuation of the Middle Bronze Age in Palestine into the early 18th Dynasty in Egypt as suggested by the evidence from Tell el-Dab`a (Bietak 1991: 57-58).⁷⁴⁵

⁷³⁷ Lachish also yielded an early Middle Kingdom heirloom (Tufnell 1958, Pl. 36: 205): a Montet Jar-type cowroid displaying the motif with spirals (See Ward 1978a: Pl. 7 for parallels).

⁷³⁸ Tell el-`Ajjul also yielded an example displaying an arrangement of hieroglyphs with the sign *r* (Keel 1997: 433, no. 971) suggesting an Egyptian Second Intermediate Period origin (Ben-Tor 2004c: 33). This scarab also displays a unique back decoration depicting a seated lion.

⁷³⁹ See also Rowe 1936, no. 365 from Gezer.

⁷⁴⁰ The latter was found in an early MBIIIB context and is therefore discussed in the early series (above, §IIIA 1a).

⁷⁴¹ See below, design class 10A1, and Pl. 102: 12, 36).

⁷⁴² For early 18th Dynasty examples displaying these features see e.g. Hornung and Staehelin 1976: Pls. 20-22, nos. 200, 206, 207, 219, 221, 223, 233. For 18th Dynasty parallels to the design of the scarab presented in Tufnell 1984: Pl. 3: 1101=Keel 1997: 359, no. 748 see Säve-Söderbergh and Troy 1991: Pl. 11: 185/47:1G, 185/65:1A.

⁷⁴³ See e.g. Hornung and Staehelin 1976: Pl. 90: 809, 810, Tufnell 1984: 112: 22 from Maket tomb at Kahun, and the two examples from Tell el-`Ajjul (Keel 1997: 166-67, 380-81, nos. 183, 810).

⁷⁴⁴ For the continuation of the Second Intermediate Period type cowroid into the 18th Dynasty see Keel 1995a: 79, § 191, and in particular Keel 1997: 174-75, 182-83, nos. 209, 239.

⁷⁴⁵ None of the Tell el-`Ajjul examples come from a secure Middle Bronze Age context. One (Keel 1997: 166-67, no. 183) has no context, and the other two come from contexts assigned with high probability to city II (Keel 1997: 358, 380, nos. 748,

The late series include also a small number of variations depicting only two papyrus stems (**Plate 74: 37-42**), which probably developed from the three-stem papyrus motif as indicated by examples associated with similar designs (**Pl. 74: 38, 41**). As noted above (§IIA 1a), examples depicting only two stems are found in the Second Intermediate Period Egyptian series, some of them possibly of Egyptian origin. Yet, the particular designs depicted on most Palestinian examples argue for their Canaanite production,⁷⁴⁶ and the absence of the design in the early series suggests dating all scarabs displaying it to the later phases of the MBIIB.

Another variation displaying papyrus stems in the late Palestinian series depicts them in two pairs flanking a central motif, each pair consisting of one upright and one down-curved stem (**Pl. 74: 43-47**). The latter were categorized by Tufnell under design class 3A2 (1984: Pl. 7: 1300-1312 – the *nbty* motif) as some examples depict the papyrus stems on *nb* signs (Tufnell 1984: Pl. 7: 1305-1306, 1311, **Pl. 74: 43**). It was however argued above (§IIIA 3a2), that these local designs should not be considered as developments of the early Middle Kingdom *nbty* design.

A design depicting a schematic lotus flower between two stylized *s3* signs or two *nfr* signs is attested on four examples from Tell el-`Ajjul (Keel 1997: 107-399, nos. 6, 7, 864, 865). This particular design is not found elsewhere in Palestine but occurs on a scarab from stratum G/4 at Tell el-Dab`a (Mlinar 2001, no. 20), a scarab from Byblos (Dunand 1937/39: Pl. 129: 2305), one from Harageh (Engelbach 1923: Pl. 20: 95),⁷⁴⁷ and one from Kahun (Petrie, Brunton and Murray 1923: Pl. 64: 291),⁷⁴⁸ all dating from the late Middle Kingdom. Two additional examples, one from Mostagedda (Brunton 1937: Pl. 69: 22), and one from Aniba (Steindorff 1935: Pl. 31: 20),⁷⁴⁹ come from Second Intermediate Period contexts but display characteristics suggesting a late Middle Kingdom date.⁷⁵⁰ The features of the four Tell el-`Ajjul examples, however, indicate a late Second Intermediate Period date (below, §IVB). As no other examples displaying Second Intermediate Period characteristics are known from Palestine or Egypt it is difficult to establish the origin of these scarabs, though considering the complete absence of the design elsewhere in Palestine, an Egyptian Second Intermediate Period origin seems more likely.

The branch, first attested in the early Palestinian series (above, §IIIA 1a), is more common in the late series, both as dominant and as secondary motif (Keel 1995a: 164, §433). Schroer was the first to point out the Canaanite origin of the branch motif and its close association with the nude goddess (Schroer 1989: 96-113). She was also the first to argue that the motif identified as geometric by Tufnell (1984: Pl. 1: 1007-1012) is in fact a branch, and shows its association with female figurines from the Western Asiatic cultural sphere (Schroer 1989: 106-109). The excavated examples displaying this motif come mainly from the late Palestinian series (**Pl. 74: 48-55**),⁷⁵¹ and one example comes from Tell el-Yehudiyeh (Petrie 1906: Pl. 9: 187). The Palestinian examples include two scarabs from Jericho (**Pl. 74: 48-49**), four from Tell el-Far`ah (S) (**Pl. 74: 50-53**), one from Gezer (**Pl. 74: 54**), and one from Lachish (**Pl. 74: 55**). The branch as secondary motif is attested mainly with design classes 9 and 10 (below), yet a handful of examples depict it with other designs (e.g. **Pl. 74: 13, 34**). Branches are also depicted on the back of Canaanite scarabs of the late series (below).⁷⁵²

§IVA 2. Design class 2 – Scrolls and spirals

The discussions of design class 2 in the previous chapters demonstrate a considerable decline in its popularity after the Middle Kingdom, both in Egypt and in Palestine, as well as the lesser quality of post-Middle Kingdom products. As noted in the previous chapter (§IIIA 2), both subclasses of the design are attested in the Palestinian series, most examples coming from the late series.

810), which continued into the LBIA and thus into the early 18th Dynasty (Weinstein 1981: 4). See also Bietak and Kopetzky 2000: 96-97.

⁷⁴⁶ The only exception, which is most probably an Egyptian Second Intermediate Period import considering its design is the Tell el-`Ajjul example on a distinctive type of cowroid decorated with a flower on its back (Tufnell 1984: Pl. 2: 1060 = Keel 1997: 211, no. 321). This is supported by another cowroid of this type from Tell el-`Ajjul depicting a symmetric-hieroglyphs design (3B) with a winged sun disk and the sign *r* (Keel 1997: 259, no. 458) typical of Egyptian Second Intermediate Period scarabs (§IIA 3b1, §IIA 3b5).

⁷⁴⁷ Depicting the lotus flower between one stylized *s3* and one down-curved papyrus stem.

⁷⁴⁸ Depicting a papyrus instead of the lotus flower.

⁷⁴⁹ On a hedgehog design amulet.

⁷⁵⁰ For the hedgehog design amulet see above §IB. The back and side types of the Mostagedda scarab may even suggest an early Middle Kingdom date (see Ward 1978a: Pl. 14).

⁷⁵¹ Two examples, one from Tell el-Far`ah (N) and one from Garstang's excavations at Jericho come from much later contexts where they constitute heirlooms (respectively Dumortier in Amiet et al. 1996: 58, no. 26, Fig. 2: 26 and Rowe 1936: 149, no. 623, Pl. 16: 623). For the corpus of published examples see Schroer 1989: 106, Figs. 017-029.

⁷⁵² E.g. Macalister 1912: Pl. 206: 45, 46 from Gezer; Starkey and Harding 1932: Pl. 43: 9; Price Williams 1977: Fig. 32: 1 from Tell el-Far`ah (S); Kirkbride 1965: Fig. 296: 9 from Jericho; Keel 1997: 141-277, nos. 108, 447, 510 from Tell el-`Ajjul.

§IVA 2a. Design class 2A – Scrolls and spirals, unlinked

The main patterns of design class 2A in the late Palestinian series that are presented by Tufnell from the three sites included in her study (1984: Pl. 4) are identical to those occurring in the Egyptian Second Intermediate Period series: 1. One S or Z scroll covering the entire base surface (PI. 75: 1-5). 2. One S or Z scroll in combination with other motifs (PI. 75: 6-12). 3. Three S or Z scrolls displayed one above the other (PI. 75: 13-17). Other examples presented by Tufnell display a pattern depicting two S/Z or C scrolls flanking a central motif (PI. 75: 18-21). In addition to the examples from Jericho, Tell el-Far'ah (S), and Tell el-'Ajjul noted above, one example comes from Megiddo (PI. 75: 22), four from Lachish (PI. 75: 23-26), and one from Gezer (PI. 75: 27).

These patterns differ from the typical patterns of the late Middle Kingdom series, where the first and third patterns are completely absent and the second and fourth are associated with different motifs (see PI. 2). These differences from the Middle Kingdom prototypes and the larger number of examples in Palestine compared with Second Intermediate Period Egypt argue for the Canaanite origin of these scarabs. This is further indicated by meaningless signs occurring on some examples (PI. 75: 18-20), and by the combination of the design with motifs that are not attested on Egyptian scarabs like the square cartouche (PI. 75: 21; below, design class 3D). Although almost all scarabs bearing design class 2A in the Palestinian series are assigned to the late series (Tufnell 1984: Pl. 4), there is little doubt as to the late Middle Kingdom inspiration for its occurrence on Canaanite scarabs.

§IVA 2b. Design class 2B – Scrolls and spirals, interlocking

The small number of examples displaying design class 2B in the Second Intermediate Period Egyptian series (above, §IIA 2b) compared with the number of examples attested in the late Palestinian series (Tufnell 1984: Pls. 5-6) argues for the likely Canaanite origin of most Palestinian examples except in the case of late Middle Kingdom heirlooms. It is interesting to note the relatively large number of late Middle Kingdom heirlooms displaying design class 2B in the Palestinian series compared with all other design classes.⁷⁵³ It should also be noted that determining an Egyptian or Canaanite origin for some of the Palestinian examples is difficult, especially when there is no record of the scarab's features.

Design class 2B is far more popular on Canaanite scarabs in the late series than design class 2A; it is attested on nine such examples from Jericho (PI. 75: 28-36), at least seven from Lachish (PI. 75: 37-43), at least five from Gezer (PI. 75: 44-48), and at least twenty-three from Tell el-'Ajjul (PI. 75: 49-57, PI. 76: 1-14).⁷⁵⁴ The fact that only one example was found at Tell el-Far'ah (S) (PI. 76: 15), probably reflects accident of survival considering the number of examples at other sites. As in the case of design 2A, there is no doubt as to the late Middle Kingdom inspiration for the occurrence of design 2B on Canaanite scarabs.

§IVA 3. Design class 3 – Egyptian signs and symbols

The popularity of Egyptian signs and symbols in the Palestinian series is attested in the fifteen plates displaying subclasses of design class 3 from the three sites included in Tufnell's study (Tufnell 1984: Pls. 7-20). The variations of these subclasses that occur in the late series are presented in the discussion below, and a comparison is made between them and those occurring in the three groups discussed in the previous chapters.

§IVA 3a. Design class 3A – Monograms and varia

As in the case of the previous chapters, the discussion below refers to Tufnell's four subclasses of design 3A and points out the variations and developments attested in the late Palestinian series.

§IVA 3a1. Design class 3A1 – Sign of union (*sm3-t3wy*)

The considerable decline in the popularity of this Middle Kingdom motif is attested in the small number of examples from Second Intermediate Period Egypt and Middle Bronze Age Palestine (above, §IIA 3a1; Tufnell 1984: 117). Nevertheless, examples displaying Canaanite characteristics indicate the adaptation of the design on Canaanite scarabs in both the early and late Palestinian series (above, §IIIA 3a1). The late series yielded a small number of

⁷⁵³ See e.g. Rowe 1936, nos. 56, 57, 193 from Gezer; Tufnell 1958: Pls. 30-34: possibly 27, possibly 38, possibly 62, 107, 110, 145, 146, 147, 148 from Lachish; Kirkbride 1965: Fig. 291: 3, Fig. 295: 8, Fig. 297: 3, Fig. 300: 7, 15 from Jericho; Tufnell 1973: Figs. 2-3: 55, 59, possibly 81, 103, 106, and 129 from Megiddo; Price Williams 1977: Fig. 5: 1, Fig. 54: 1, 2, Fig. 63: 1 from Tell el-Far'ah (S), and although no features are recorded, possibly also Tufnell 1984: Pls. 5-6: 1183, 1184, 1185, 1187, 1233, 1234 from this site; Keel 1997: 125-501, nos. 59 (sealing), 95, 97, 153, 207, 325, 419, 484, possibly 498, 532, 593, possibly 642, possibly 743, 788, possibly 853, 899, possibly 903, 925, 927, possibly 1021, 1159, 1160, 1162, 1164 from Tell el-'Ajjul.

⁷⁵⁴ All the sites listed above yielded also examples of uncertain origin (see e.g. Keel 1997: 365-501: nos. 766, 927, 991, 1159, 1166, 1167, 1169 from Tell el-'Ajjul).

examples, which include three scarabs from Jericho (Pl. 76: 16-17),⁷⁵⁵ two from Tell el-Far`ah (S) (Pl. 76: 18-19), one from Lachish (Pl. 76: 20), one from Gezer (Pl. 76: 21),⁷⁵⁶ and fourteen from Tell el-`Ajjul (Pl. 76: 22-35). Tell el-`Ajjul yielded one example displaying two *k3* signs in a form suggesting a Second Intermediate Period Egyptian origin (Keel 1997: 405, no. 882).⁷⁵⁷ The examples listed above display the design alone (Pl. 76: 16, 24, 26-27), or in combination with hieroglyphs (Pl. 76: 19-22, 32-34), misrendered signs (Pl. 76: 17-18, 25, 35), a rope border (Pl. 76: 28) spirals (Pl. 76: 30), the three stem papyrus (Pl. 76: 23, 31), and the decorated oval (Pl. 76: 29). Although some of these designs occur on late Middle Kingdom scarabs (the depiction of the design alone or in combination with hieroglyphs), the examples listed above display particular designs and features that are not attested on Egyptian scarabs of the Middle Kingdom or Second Intermediate Period and argue for their Canaanite origin. These scarabs indicate the continuation of the design on Canaanite scarabs into the later phases of the MBIIB.

§IVA 3a2. Design class 3A2 – *nbtj* motif

As demonstrated above (§IIA 3a2, §IIIA 3a2) this motif does not continue into the Second Intermediate Period either in Egypt or in Palestine. The Palestinian examples categorized under this design by Tufnell (1984: Pl. 7), though sometimes sharing motifs like pairs of papyrus stems with some of the early Middle Kingdom variations of the *nbtj* design, are better categorized under design class 1E (above). Their Canaanite origin is indicated mainly by the absence of similar designs in Egypt.

§IVA 3a3. Design class 3A3 – *Varia*

The examples assembled by Tufnell as illustrations for design class 3A3 (1984: Pls. 8-8b) consist of scarabs of the early as well as the late Palestinian series. Yet, unlike the miscellaneous designs of the early series, which display consistent characteristics (above, §IIIA 3a3), it is difficult to point out consistent designs that can be categorized under 3A3 in the late series. The only exception is a combination of stylized *s3* or *w3d* signs and variations of the decorative element first occurring on Canaanite scarabs of the early series (Ben-Tor 1997: Fig. 12). Unlike in the case of the early series, where the miscellaneous designs categorized under design class 3A3 are among the most popular designs, the late series include only a very small number of scarabs displaying the combination mentioned above. Most examples come from Tell el-`Ajjul, which yielded nine scarabs displaying variations of this combination (Pl. 77: 1-9). Tell el-`Ajjul also yielded an example showing distinctive characteristics of the B2-head group (Keel 1997: 419, no. 923 = Pl. 51: 49), arguing for the initial occurrence of this combination in the early series (above, §IIIB 1). This is confirmed by another example of the B2-head group from Beth Shemesh (Grant 1929: 89, third row first from the left = Pl. 51: 37),⁷⁵⁸ and a scarab bearing the design from Jericho group II (Kirkbride 1965: Fig. 285: 10 = Pl. 50: 29). An additional scarab from Jericho bearing the design comes from group IV (Pl. 77: 10), Tell el-Far`ah (S) yielded two examples (Pl. 77: 11-12), and one example was found at Shechem (Rowe 1936: Pl. 9: 371). The design is not attested at Megiddo, Lachish, and Gezer. Unlike other designs found mainly at Tell el-`Ajjul, which are of Egyptian origin, the occurrence of this combination on scarabs of the B2-head group, and the Canaanite origin of the decorative motif, argue for the Canaanite origin of the scarabs categorized here under design class 3A3.

§IVA 3a4. Design class 3A4 – Horus hawk with *ntr* and other signs

The Canaanite origin of this design, its popularity in the early series and its imitations in Egypt in the late Second Intermediate Period are discussed in detail above (§IIA 3a4, §IIIA 3a4). The late Palestinian series include a very small number of examples displaying the design, consisting mainly of early-series heirlooms or Egyptian Second Intermediate Period imports. To the first category belong e.g. three examples from Jericho (Kirkbride 1965: Fig. 291: 12, Fig. 295: 22, Fig. 296: 11), and six examples from Tell el-`Ajjul (Keel 1997: 155-495, nos. 151, 582, 638, 820, 984, 1147). To the second category belong three examples from Tell el-`Ajjul (Keel 1997: 135-269, nos. 88, 470, 488) one from Lachish (Tufnell 1958: Pls. 34-35: 196), and one from Tell Jerishe (Giveon 1988: 74-75, no. 81). Only two examples in the late series display features that argue for a likely late MBIIB Canaanite origin, both

⁷⁵⁵ An additional example (Kirkbride 1965: Fig. 300: 10) depicts the motif in combination with design class 6A, a combination found on late Middle Kingdom scarabs (Pl. 13: 1, 6) arguing for the late Middle Kingdom origin of this scarab, which is supported by its features.

⁷⁵⁶ An additional example from Gezer (Rowe 1936: Pl. 9: 365) depicting the motif flanked above and below by the three-stem papyrus, displays features of the D-head group, which argue for an early MBIIB date (for a close parallel from Rishon Leziyyon see Pl. 50: 20).

⁷⁵⁷ The features of the scarab are not recorded.

⁷⁵⁸ The features of the scarabs are presented in Mlinar 1999/I:249.

displaying unusual patterns of the design in combination with panels (design class 3E1): one from group III at Jericho (Pl. 77: 13), and one from Tell el-`Ajjul (Pl. 77: 14).

§IVA 3b. Design class 3B – Symmetric patterns

As in the case of the three groups discussed in the previous chapters, the large number of subclasses of this design class in the late Palestinian series is used here to point out chronological and regional distinctions.

§IVA 3b1. Design class 3B1 – Cobras

Tufnell noted the major decline in the popularity of all subclasses of design 3B1 in the late Palestinian series in comparison with the early series (Tufnell 1984: 118), except in the case of confronted cobras (design class 3B1c). The chronological and regional implications of this observation are discussed below.

§IVA 3b1a. Design class 3B1a – cobras addorsed, 3B1b – addorsed and linked, 3B1d – addorsed linked and crowned.

Most examples in the Palestinian series displaying variations of addorsed cobras come from the early series (Tufnell 1984: 118), and consist almost exclusively of local Canaanite productions (above, §IIIA 3b1a). Examples in the late series that do not display distinctive early-series characteristics include four examples from Jericho (Pl. 77: 15-18),⁷⁵⁹ two from Tell el-Far`ah (S), (Pl. 77: 19-20),⁷⁶⁰ one from Lachish (Pl. 77: 21),⁷⁶¹ and eleven from Tell el-`Ajjul (Pl. 77: 22-32).⁷⁶² As in the case of the early series all three types occur also in the late series, types b and d being far more common than type a. The Canaanite origin of these examples is indicated by the combination of the addorsed cobras with Canaanite designs like the branch (Pl. 77: 16) the square cartouche (Pl. 77: 26, 31), the Canaanite version of the Hathor symbol (Pl. 77: 29), and design class 3C (Pl. 77: 18-21, 23). Tell el-`Ajjul yielded also an example displaying a form of *k3* suggesting a Second Intermediate Period Egyptian origin (Keel 1997: 247, no. 423). As demonstrated above (§IIA 3b1), addorsed cobras are not attested in the Egyptian Second Intermediate Period series; the Tell el-`Ajjul example provides further evidence for the inadequate corpus comprising the Egyptian Second Intermediate Period series, which does not necessarily represent the entire range of designs occurring on Egyptian scarabs of this period.

§IVA 3b1b. Design class 3B1c – Cobras confronted

In contrast to the early Palestinian series, the dominant type of design class 3B1 in the late series is 3B1c depicting symmetric patterns of confronted cobras. As demonstrated above (§IIA 3b1a) this is the only type of design class 3B1 that is attested in the Second Intermediate Period Egyptian series, where most examples display characteristics suggesting an Egyptian origin. The late trend of the design in the Palestinian series, which was noted by Tufnell (1984: 118) is manifested primarily in its great popularity at Tell el-`Ajjul, where twenty-four examples were found (Keel 1997: 111-525: nos. 19, 30, 43, 44, 106, 140, 326, 391, 398, 415, 420, 458, 565, 627, 718, 763, 811, 814, 822, 842, 921, 1091, 1093, 1241). This, however, is not the case at other sites; not a single example was found at Megiddo or Gezer, Jericho yielded only one example (Kirkbride 1965: Fig. 302: 5), Tell el-Far`ah (S) yielded three (Price Williams 1977: Fig. 5: 5, Fig. 15: 2, Fig. 48: 9), and Lachish yielded four (Tufnell 1958: Pls. 30-34: 17, 29, 122, 195).

Most of the Tell el-`Ajjul examples display characteristics that argue for an Egyptian Second Intermediate Period origin. These include *r* signs (Keel 1997: 119-479, nos. 43, 140, 415, 420, 458, 565, 822, 1091, 1093), the particular form of *k3* with horizontal lines (Keel 1997: 259-295, nos. 458, 565, 718, 1093), and depiction of the cobras in longitudinal settings of symmetric hieroglyphs, usually with the winged sun disk at the bottom (Keel 1997: 119-525: nos. 44, 458, 627, 814, 921, 1241).⁷⁶³ A most likely Egyptian origin should also be considered in the case of the royal-name scarab bearing a crude variation of the prenomen of Amenemhat III (Keel 1997: 213, no. 326),⁷⁶⁴ examples displaying double or triple scarab backs (Keel 1997: 115-525, nos. 30, 1241),⁷⁶⁵ and one of the Lachish examples depicting the design in longitudinal setting on a cowroid of the type associated with King Apophis (Tuf-

⁷⁵⁹ Depicting respectively: type d, type b, type d, type d.

⁷⁶⁰ Depicting respectively: type d, type b.

⁷⁶¹ Depicting type b.

⁷⁶² Depicting respectively: type a, type b, type b, type d, type d, type b, type b, type b, type b, type d, type d.

⁷⁶³ See also Ben-Tor 2004c: 34-35, and Fig. 4: 9.

⁷⁶⁴ The *nb* replacing the *t* sign at the bottom of the cartouche, and the *r* sign depicted at the bottom of the base surface argue for the Second Intermediate Period rather than late Middle Kingdom origin of this scarab.

⁷⁶⁵ See Keel 1995a: 61-62, § 129-130.

nell 1958: Pl. 34: 195). Two of the Tell el-`Ajjul examples display characteristics suggesting a late Middle Kingdom Egyptian origin (Keel 1997: 141-239, nos. 106, 398).

A Canaanite origin should be considered for two of the Tell el-`Ajjul examples: the fragmentary scarab depicting the cobras flanking design class 3B6 (Pl. 77: 34),⁷⁶⁶ and the scarab depicting the cobras in combination with design class 3C (Pl. 77: 35). A Canaanite origin should also be considered in the case of the Jericho scarab (Pl. 77: 33), and is most likely in the case of one of the Tell el-Far`ah (S) scarabs (Pl. 77: 36) and three of the Lachish scarabs (Pl. 77: 37-39). These scarabs do not display characteristics of the early series, thus suggesting the continuing production of the design, albeit on a very small scale, also in the late phases of the MBIIB. The origin of the Tell el-`Ajjul scarab depicting the cobras in longitudinal setting flanking two *nfr* signs (Pl. 77: 40) is inconclusive, and this is also the case with the two remaining examples from Tell el-Far`ah (S) (Pl. 77: 41-42), as all three display designs that are attested on Second Intermediate Period examples: one displays the cobras in longitudinal setting (Pl. 77: 40), one displays them at the top of columns of hieroglyphs comprising paired signs (Pl. 77: 42), and one displays them at the top of paired signs flanking a central design depicted above and below a winged sun disk (Pl. 77: 41).

§IVA 3b2. Design class 3B2 – King of Upper and Lower Egypt (*nsw-bît*)

The design consisting of the sedge and the bee is not attested on late Middle Kingdom and Second Intermediate Period Egyptian scarabs (above, §IA 3b2, §IIA 3b2), but occurs in both the early and late Palestinian series (Tufnell 1984: 118-19). The number of examples found in the late series, which is larger than that found in the early series, suggests some increase in the popularity of the motif on Canaanite scarabs in the later phases of the MBIIB. It occurs on one example from the late groups at Jericho (Pl. 78: 1), three from Tell el-Far`ah (S) (Pl. 78: 2-4), one from Megiddo (Pl. 78: 5), six from Lachish (Pl. 78: 6-11), four from Gezer (Pl. 78: 12-15), and fourteen from Tell el-`Ajjul (Pl. 78: 16-29).

Almost all examples depict the motif at the top of the base surface, in combination with patterns of symmetric hieroglyphs,⁷⁶⁷ sometimes with design class 3B6 (Pl. 78: 4, 7-8, 10, 12, 15, 19, 25, 28). The Canaanite origin of the scarabs displaying design class 3B2 was argued above (§IIIA 3b2), and is supported by examples depicting the *swt* plant in the wrong direction (Pl. 78: 2, 9, 16). Since the motif is not attested on late Middle Kingdom and Second Intermediate Period Egyptian scarabs, the source of inspiration for its occurrence on Canaanite scarabs is uncertain.

§IVA 3b3. Design class 3B3 – Red crowns

The discussions of design class 3B3 in the previous chapters demonstrate the chronological and regional implications of the distribution of its five subclasses 3B3a-e. The discussion below presents the distribution of these subclasses in the late Palestinian series.

Type a – red crowns addorsed on *nb*

This subclass, which occurs on a significant number of late Middle Kingdom Egyptian scarabs is absent in Second Intermediate Period Egypt and occurs on a very small number of Canaanite scarabs in the early Palestinian series (above, §IIA 3b3, §IIIA 3b3). The complete absence of this subclass at Tell el-Far`ah (S), Lachish, the late groups at Jericho and Megiddo, and its almost complete absence at Tell el-`Ajjul,⁷⁶⁸ argues against its continuation on Canaanite scarabs of the late series. The absence of the design in both the Second Intermediate Period Egyptian series and the late Palestinian series is in agreement with the frequent corresponding attested in the distribution of designs in both series.

Type b – red crowns addorsed

In contrast to subclass 3B3a, subclass 3B3b gains in popularity in the Second Intermediate Period both in Egypt and in Palestine (above, §IIA 3b3, §IIIA 3b3). The design is more common in the early rather than the late Palestinian series (Tufnell 1984: 119). Nevertheless, its continuing production in the later phases of the MBIIB is indicated by the number of Canaanite examples in the Second Intermediate Period Egyptian series (above). Seventeen examples were found at Tell el-`Ajjul, five of them displaying Canaanite characteristics of the late series (Pl. 78: 30-

⁷⁶⁶ The scarab is broken and therefore depicts only one cobra; the missing part most probably included the symmetrically opposed second cobra.

⁷⁶⁷ The only exception depicting the motif alone like in the early Middle Kingdom (Ward 1978a: Pl. 12: 301) and early 18th Dynasty (Keel 1997: 247, no. 424), comes from Tell el-`Ajjul (Keel 1997: 119, no. 45 = Pl. 78: 16), and is so far unique. Its Canaanite origin is indicated by the inverted position of the *swt* plant.

⁷⁶⁸ Of the two examples published from the site, one (Keel 1997: 481, no. 1103) displays late Middle Kingdom characteristics (above, §IB 5). The second scarab is lost and only a drawing of its base is recorded (Keel 1997: 127, no. 69), indicating a possible a late Middle Kingdom Egyptian origin. The third example from the site presented by Tufnell (1984: Pl. 11: 1553) displays distinctive early-series characteristics, and does not depict red crowns on *nb* signs but crowned linked uraei as can be clearly seen in the photograph provided by Keel (1997: 479, no. 1095).

34),⁷⁶⁹ eight at Gezer (Pl. 78: 35-41),⁷⁷⁰ three at Lachish (Pl. 78: 42-44),⁷⁷¹ five at Jericho (Pl. 78: 45-49), one at Megiddo (Pl. 78: 50),⁷⁷² and one at Tell el-Far`ah (S) (Pl. 78: 51). It is interesting to note the nine examples from Tell el-`Ajjul displaying Second Intermediate Period Egyptian characteristics (above), while no such examples are attested at other Palestinian sites. The number of Second Intermediate Period Egyptian examples bearing design class 3B3b at Tell el-`Ajjul, which is larger than that attested in the Second Intermediate Period Egyptian series (above, §IIA 3b3), further indicates the inadequate corpus provided by the latter.

As in the case of Canaanite scarabs in the early series, the designs occurring in the late series depict the addorsed crowns in symmetric patterns of hieroglyphs flanking a central motif (Pl. 78: 30-51), usually at the bottom of the base surface (Pl. 78: 30-35, 39, 45, 47-51), and in longitudinal setting (Pl. 78: 36-37, 41-43, 46). The Egyptian examples frequently display the former pattern in association with design class 3B1c (Pl. 34: 2, 6, 12-13, 15, 31),⁷⁷³ a combination attested also on Canaanite scarabs (Pl. 78: 49, 51). Canaanite scarabs also display the design in combination with design class 3C (Pl. 78: 33-34, 39, 45, 47, 50), and in longitudinal setting in association with design class 3B6 (Pl. 78: 36-37, 42-43, 46).

Type c – red crowns confronted

The popularity of this design in the late Middle Kingdom series, its complete absence in the Second Intermediate Period Egyptian series, its rare occurrence in the Palestinian series, and its almost complete absence on Canaanite scarabs were discussed in the previous chapters (§IA 3b3, §IIA 3b3, §IIIA 3b3).

Type d – red crowns addorsed, “L shaped”

The Canaanite origin of this unusual depiction of the red crown was argued above (§IIIA 3b3). Like the early Palestinian series, the late series include a handful of examples depicting L-shaped red crowns alone or in pairs in symmetric patterns. These include two examples from Lachish (Pl. 79: 1-2), three from Gezer (Pl. 79: 3-5), and three from Tell el-`Ajjul (Pl. 79: 6-8).

Type e – red crowns *tête bêche*

Like red crowns addorsed (above, type b), red crowns *tête bêche* gain in popularity in the Second Intermediate Period compared with the late Middle Kingdom (above, §IIA 3b3). First occurring in Palestine in the early series (above, §IIIA 3b3), design class 3B3e is attested also in the late series, indicating the continuing production of the design throughout the MBIIB. Nevertheless, the number of examples attested in both Egypt and Palestine suggests it was not a very popular design. The late Palestinian series include only three examples from Jericho (Pl. 79: 9-11), two from Lachish (Pl. 79: 12-13), and six from Tell el-`Ajjul (Pl. 79: 14-19).⁷⁷⁴

The crowns always flank a central design in longitudinal setting or above and below it, the central designs usually consisting of a selection of hieroglyphs (Pl. 79: 9, 11, 14, 16-19) or design class 3C (Pl. 79: 12, 16). Occasional other designs are also attested, as for example design class 4 (Pl. 79: 10), or the 3A1 (Pl. 79: 13).

§IVA 3b4. Design class 3B4 – Horus eyes (*wḏḥt*)

The scarabs displaying design class 3B4 in the late Palestinian series indicate not only the continuing production of this late Middle Kingdom design on Canaanite scarabs but its increasing popularity in the later phases of the MBIIB. Most examples come from Tell el-`Ajjul, which yielded twenty-five items,⁷⁷⁵ ten of them displaying characteristics that argue for a Canaanite production (Pl. 79: 20-29). Five examples bearing the design were found at Jericho (Pl. 79: 30-34), three at Megiddo (Pl. 79: 35-37), three at Tell el-Far`ah (S) (Pl. 97: 38-40), and two at Lachish (Pl. 97: 41-42). Seven of the Tell el-`Ajjul examples display characteristics suggesting an Egyptian Second Intermediate Period origin: the sign *r* or the particular form of the sign *k3* (Keel 1997: 119-479, nos. 43, 420, 565, 811, 837, 1090, 1093), and two display designs and features suggesting an Egyptian late Middle Kingdom origin (Keel 1997: 267-481, nos. 480, 1103). None of the other examples listed above display designs or features that argue against their Canaanite origin and later MBIIB date of production.

⁷⁶⁹ The other examples from the site include one displaying early-series characteristics (Keel 1997: 397, no. 856), two displaying late Middle Kingdom characteristics (Keel 1997: 239-409, nos. 398, 896), and nine displaying Egyptian Second Intermediate Period characteristics (Keel 1997: 145-477, nos. 119, 140, 326, 350, 565, 622, 837, 1090, 1091).

⁷⁷⁰ The site yielded also an example displaying late Middle Kingdom characteristics (Brandl 1986: Pl. 2: 3) and one displaying early-series characteristics (above, Pl. 60: 3).

⁷⁷¹ The site yielded also two examples displaying early-series characteristics (Tufnell 1958: Pl. 30: 24, 48).

⁷⁷² An additional example displays early-series characteristics (Tufnell 1973: Fig. 3: 110). For the scarab's features see Loud 1948: Pl. 157: 142).

⁷⁷³ See also Keel 1997: 153-477: 140, 326, 415, 565, 1091.

⁷⁷⁴ Two additional examples display early-series characteristics (See above Pl. 54: 32, Pl. 60: 11).

⁷⁷⁵ See Keel 1997: 119-483, nos. 43, 111, 143, 378, 398, 420, 453, 480, 487, 564, 565, 622, 728, 750, 800, 811, 837, 896, 901, 980, 1090, 1092, 1093, 1103, 1104.

The Canaanite examples displaying design class 3B4 in the late series usually depict the eyes in symmetric patterns of paired signs, like the examples discussed in the previous chapters; they are often depicted in combinations with paired cobras or red crowns (Pl. 79: 20-21, 23-24, 31, 34, 38). The combination of the eyes with red crowns and cobras is attested already on Egyptian late Middle Kingdom scarabs (Pl. 9: 7, 15, 18, 22, 24, 26, 31, 33, 36, 38-39), and on Egyptian Second Intermediate Period examples. The latter, however, unlike late Middle Kingdom and Canaanite scarabs, which depict the eyes in combination with either cobras or red crowns, often depict the cobras at the top of the base surface and the red crowns at the bottom (Pl. 34: 28-36).⁷⁷⁶ Design class 3B4 occurs in the late Palestinian series also with Canaanite designs like 3C (Pl. 79: 22), 10D (Pl. 79: 32), with Egyptian designs like 3A1 (Pl. 79: 28), 3B6 (Pl. 79: 31, 33, 41), 3D (Pl. 79: 20, 25, 27), and 8A (Pl. 79: 32-34), and in longitudinal setting enclosed in design classes 7A (Pl. 79: 36), and 8C (Pl. 79: 40). These particular combinations are not attested on Egyptian Middle Kingdom or Second Intermediate Period scarabs. Yet, as noted above, (§IIIA 3b4) the late Middle Kingdom pattern depicting the eyes as a pair at the top of the base surface is attested also on Canaanite scarabs in the late Palestinian series (Pl. 79: 21-22, 25-28).

§IVA 3b5. Design class 3B5 – Sedge plants (*swt*)

The popularity of this design in the late Palestinian series, which has been noted by Tufnell (1984: 120), is reflected in the forty-one examples bearing the design from Tell el-ʿAjjul,⁷⁷⁷ eighteen of them displaying Canaanite characteristics of the later MBIIb (Pl. 79: 43-51, Pl. 80: 1-9). The late Palestinian series also yielded seven such examples from Jericho (Pl. 80: 10-16), three from Megiddo (Pl. 80: 17-19), six from Lachish (Pl. 80: 20-25),⁷⁷⁸ and five from Tell el-Farʿah (S) (Pl. 80: 26-30). Two scarabs bearing the design from Tell el-ʿAjjul (Keel 1997: 143-243, nos. 113, 409), one from Jericho (Kirkbride 1965: Fig. 290: 10), one from Lachish (Tufnell 1958: Pl. 32: 123), and one from Tell el Farʿah (S) (Petrie 1930: Pl. 10: 64), display distinctive late Middle Kingdom characteristics, i.e. the “formal” form of the plant and distinctive designs (see Pl. 10: 1-13). Tell el-ʿAjjul also yielded fourteen examples displaying Egyptian Second Intermediate Period characteristics (Keel 1997: 153-485, nos. 141, 351, 475, 524, 622, 700, 702, 747, 768, 878, 879, 891, 979, 1114). The scarabs depicting design class 3B5 at Tell el-ʿAjjul thus argue for the popularity of the design on MBIIb Canaanite scarabs as well as on Second Intermediate Period Egyptian scarabs. Both groups display the *swt* plant in the “casual” simple form, unlike the customary “formal” form on late Middle Kingdom scarabs (above, §IA 3b5), and both rarely display the distinctive late Middle Kingdom depiction of the *swt* plants in the top field of symmetric patterns divided by a central line.

Like the examples discussed in the previous chapters, Canaanite scarabs of the late Palestinian series usually depict the *swt* plants in pairs in symmetric patterns flanking a central motif. These scarabs also depict the *swt* plants in longitudinal setting flanking one or more signs (Pl. 80: 7, 13), a pattern that is also attested on Egyptian Second Intermediate Period items (Pl. 35: 13, 20).⁷⁷⁹ The *swt* plants are also depicted in association with design class 3B6 (Pl. 79: 47-48, 50, Pl. 80: 5-6, 15, 23, 27), a combination that is not found on Egyptian scarabs of the late Middle Kingdom and Second Intermediate Period. Nevertheless, one of the examples displaying the latter combination at Tell el-ʿAjjul (Keel 1997: 143, no. 113), depicts the “formal” form of the *swt* plant which strongly argues for a late Middle Kingdom Egyptian origin (above), and for the origin of this combination on late Middle Kingdom scarabs. The *swt* plants are also depicted in the late series in combination with design class 3C (Pl. 79: 43, Pl. 80: 1), 3D (Pl. 79: 43), and 3E (Pl. 80: 1), the latter occurring also with Second Intermediate Period royal-name scarabs (Tufnell 1984: Pl. 57: 3223, 3236, 3238).

§IVA 3b6. Design class 3B6 – Gold sign (*nbw*) in longitudinal setting

Like design classes 3B4 and 3B5, design class 3B6 gains in popularity in the late Palestinian series. As already noted in the previous chapters (above, §IIA 3b6, §IIIA 3b6), the variations of design 3B6 in the Second Intermediate Period and Palestinian series differ from those occurring on late Middle Kingdom scarabs, the differences manifested mainly in the motifs associated with the gold sign.

Design class 3B6 occurs in the late Palestinian series on nine examples from Jericho (Pl. 80: 31-39), three from Tell el-Farʿah (S) (Pl. 80: 40-42), ten from Lachish (Pl. 80: 43-44, Pl. 81: 1-8),⁷⁸⁰ and twenty from Tell el-ʿAjjul (Pl. 81: 9-28).⁷⁸¹ The absence of examples displaying Second Intermediate Period Egyptian characteristics at Tell

⁷⁷⁶ See also Keel 1997: 119-479, nos. 43, 420, 565, 811, 837, 1090, 1093 from Tell el-ʿAjjul.

⁷⁷⁷ See Keel 1997: 111-489, nos. 19, 85, 104, 108, 113, 141, 142, 348, 349, 351, 409, 467, 475, 500, 511, 524, 580, 622, 700, 702, 704, 722, 747, 768, 769, 824, 825, 854, 878, 879, 885, 891, 911, 979, 1032, 1102, 1107, 1110, 1114, 1118, 1126.

⁷⁷⁸ An additional example found at the site displays early-series characteristics (Tufnell 1958: Pl. 32: 102 = Pl. 60: 30 above).

⁷⁷⁹ See also Keel 1997: 403, no. 878 from Tell el-ʿAjjul.

⁷⁸⁰ An additional example (Tufnell 1958: Pls. 30: 48) displays distinctive early-series characteristics (see Pl. 54: 19).

⁷⁸¹ Two additional examples from the site display late Middle Kingdom characteristics (Keel 1997: 143-229, nos. 113, 375).

el-`Ajjul (unlike in the case of design classes 3B4 and 3B5) is in accord with the almost complete absence of this design on Second Intermediate Period Egyptian scarabs (above, §IIA 3b6).

Most examples bearing the design in the late Palestinian series display the gold sign in combination with various hieroglyphs usually flanked by two *ḥl* signs (Pl. 80: 34, 36, 41-43, Pl. 81: 2, 4, 7, 10, 12-14, 16-18, 20, 22-23, 25-26, 28) sometimes alternating with *nfr* signs (Pl. 80: 35, 38, 40, Pl. 81: 11, 21), both signs occasionally flanking a third sign above the gold sign (Pl. 80: 34, 37, Pl. 81: 10-11, 20-23, 28), or rarely below it (Pl. 81: 19). It is frequently associated in the late series with design class 3B5 (Pl. 80: 40, Pl. 81: 5, 7, 13, 16, 21, 26) as also noted by Tufnell (1984: 120), and is also found with design classes 3B2 (Pl. 80: 42, 44, Pl. 81: 2, 4, 18, 25), 3C (Pl. 80: 32, 41, Pl. 81: 27) and 6A (Pl. 81: 8, 24). Variations depicting the gold sign flanked by two uraei are categorized in this study under design class 9C1 (below).⁷⁸²

§IVA 3b7. Design class 3B7 – Forepart of lion (*ḥ3t*)

The almost complete absence of this design in Second Intermediate Period contexts in Egypt and Palestine was discussed above (§IIA 3b7, §IIIA 3b7), where it was also noted that the isolated attested examples are almost exclusively late Middle Kingdom heirlooms or crude early Canaanite imitations. The late series include only one example from Lachish (Pl. 81: 29).⁷⁸³ The scarab depicts the design in combination with design classes 3B4, 3B6, and diagonally displayed *nfr* signs, all of which occur in combination with design class 3B7 in the late Middle Kingdom (Pl. 10: 39-40, Pl. 11: 26, 29, 32-39, 42, 46). The features of the Lachish scarab: back type PN, and side type e6/d13 do not argue against a late Middle Kingdom origin (above, §IB 5).⁷⁸⁴ Yet, the scarab displays also design class 3B2 (*nsw bit*) above the gold sign, which is not attested in the known late Middle Kingdom corpus. Moreover, the form of the lion foreparts is rather schematic, resembling the crude form attested on the early Canaanite examples (Pl. 55: 14-16), which argues for a Canaanite rather than Egyptian origin.

§IVA 3b8. Design class 3B8 – groups of three signs comprising the name of Ptah

As noted in the previous chapter (§IIIA 3b8) most excavated examples bearing this design come from the late Palestinian series (Pl. 81: 30-36), and an additional example to those presented by Keel (2002) was recently found at Sasa (Pl. 81: 37). Although originating mainly in the late series, the particular characteristics of the scarabs bearing this design suggest an early date within the late series (Ben-Tor 2004d: 27-28). This is supported by the example from Sāi Island displaying features of the early Tell el-Dab`a workshop, which argues for the initial occurrence of the design at Tell el-Dab`a in the final phase of the Middle Kingdom or early Second Intermediate Period (above, §IIIA 3b8). The three signs are frequently depicted at the top of the base surface enclosed in a 7B3(ii) scroll border (Pl. 81: 30-32),⁷⁸⁵ above other hieroglyphs (Pl. 81: 31),⁷⁸⁶ the latter occasionally enclosed in a cartouche (Pl. 81: 30, 32).⁷⁸⁷ They are also depicted in symmetric patterns without a scroll border (Pl. 81: 33-35, 37)⁷⁸⁸ or in association with human figures (Pl. 81: 36).⁷⁸⁹

Summing up design class 3B, most subclasses attested in the early series continue into the late series, with combinations and variations that indicate continuing local developments. Some of the late Middle Kingdom subclasses that first occur on Canaanite scarabs in the early series (e.g. 3B1c, 3B3b, 3B4, 3B5, 3B6) gain in popularity in the late series. Moreover, a close similarity is attested in the popularity and distribution of these particular subclasses between the late Palestinian series and the Second Intermediate Period Egyptian series, most of them (except for 3B6) occurring on both Egyptian and Canaanite scarabs. A large number of Egyptian Second Intermediate Period imports depicting subclasses 3B1c, 3B3b, 3B4, 3B5, was found at Tell el-`Ajjul, often exceeding the number of examples found in Egypt.

§IVA 3c. Design class 3C – Formulae

The Canaanite origin of design class 3C and its popularity in the early Palestinian series were discussed above (§IIA 3c, §IIIA 3c). The increasing popularity of the design in the late series has been noted by Tufnell (1984: 121), and is clearly indicated by the number of examples, which far exceeds that of any other design (Pls. 82-84).

⁷⁸² Tufnell categorized them under both design classes 3B6 and 9C1 (1984: Pls. 15, 37: 1673, 1674, 2520, 2521).

⁷⁸³ The example from Tell el-`Ajjul presented by Tufnell does not display the lion foreparts but out-curved papyrus plants (see Keel 1997: 408-409, no. 896).

⁷⁸⁴ I am very grateful to Othmar Keel for providing me with pictures of this scarab.

⁷⁸⁵ See Keel 2002: Figs. 2-5, 7-11, 14. One example (Keel 2002: Fig. 6) depicts a 7B2(ii) scroll border.

⁷⁸⁶ See Keel 2002: Figs. 2-11.

⁷⁸⁷ See Keel 2002: Figs. 3, 5, 11.

⁷⁸⁸ See Keel 2002: Figs. 12-13, 15-17, 19.

⁷⁸⁹ See Keel 2002: Figs. 20-21.

Tell el-ʿAjjul yielded sixty-five examples that do not display early-series or Second Intermediate Period Egyptian characteristics (Pl. 82: 1-53, Pl. 83: 1-12). Twenty-one such examples were found at Jericho (Pl. 83: 13-33), twenty at Tell el-Farʿah (S) (Pl. 83: 34-49, Pl. 84: 1-4), fifteen at Gezer (Pl. 84: 5-19), and sixteen at Lachish (Pl. 84: 20-35). The fact that only three examples come from the late groups at Megiddo (Tufnell 1973: Fig. 2: 64, 87, 97) is difficult to explain except as accident of survival.

The late series also yielded examples displaying early-series characteristics (Macalister 1912: Pl. 206: 50; Tufnell 1958: Pl. 30: 26; Kirkbride 1965: Fig. 294: 13-14, Fig. 296: 11, Fig. 301: 8; Keel 1997: 239-479, nos. 402, 728, 911, 981, 1014, 1097). Examples displaying Egyptian Second Intermediate Period characteristics⁷⁹⁰ were also found, most of them at Tell el-ʿAjjul (Keel 1997: 151-453, nos. 133, 333, 515, 726, 767, 773, 881, 883, 884, 919, 1025), and one at Lachish (Tufnell 1958: Pl. 30: 34). An example from Lachish (Tufnell 1958: Pl. 30: 21) and one from Tell el-ʿAjjul (Keel 1997: 115, no. 30), both displaying a triple-scarab back, are probably also of Egyptian origin. Multi-scarab backs are first attested on scarabs of the late Middle Kingdom (Keel 1995a: 61-62, §128, 131), but the two items under discussion are of a different type; they display between two to four scarabs on the back but a single base surface (Keel 1995a: 61-62, §129-130, type II). This type is most common in the early 18th Dynasty and occurs throughout the New Kingdom (Keel 1995a: 62, §130). The origin and exact date of multi-scarab amulets displaying Second Intermediate Period or Canaanite designs,⁷⁹¹ are inconclusive, but the evidence suggests a late Second Intermediate Period Egyptian origin, though some may date to the early 18th Dynasty (Hornung and Staehelin 1976: 227, no. 185, Pl. 18). Their Egyptian origin is indicated by the rare occurrence of such examples in the Palestinian series, and by designs on the base displaying Egyptian Second Intermediate Period characteristics.⁷⁹² These argue for an Egyptian late Second Intermediate Period origin for the Lachish and Tell el-ʿAjjul examples noted above.

The popularity of design class 3C in the late Palestinian series is also indicated by its association with most of Tufnell's design classes: 1E (82: 8, 23, 47, Pl. 83: 12, 14, 21, 23-24, 47, 49, Pl. 84: 8, 15), 2B (Pl. 82: 34, 44), 3A1 (Pl. 82: 9), 3B1 (Pl. 82: 41, Pl. 83: 47, Pl. 84: 2-3, 5, 34), 3B3 (Pl. 82: 22, 49-50, Pl. 83: 13, 15, 17-18, 21, 24, Pl. 84: 15, 25), 3B4 (Pl. 82: 14), 3B5 (Pl. 82: 6), 3B6 (Pl. 83: 10, 29, 44, Pl. 84: 6, 16), 3D (Pl. 82: 6, 17-18, 20, 34, 46, 48, 50, Pl. 83: 4-5, 13, 15, 18, 20, 23-24, 30, 34, 47, Pl. 84: 2, 10-11, 17, 21, 28-30, 33), 3E (Pl. 82: 1-2, 13, 16, 30, 39, Pl. 83: 6-9, 40, Pl. 84: 5, 7, 24, 31-32), 4 (Pl. 84: 30), 6 (Pl. 82: 7, Pl. 84: 4), 7 (Pl. 82: 3, 11, 20, 31, 37, 43, Pl. 83: 3, 19-20, 25, 27-28, 31, 36, 48, Pl. 84: 9, 20-21, 28), 8 (Pl. 82: 18, 31, Pl. 83: 14, 19, 28, 31, 35, 43, Pl. 84: 1, 11, 19, 22, 31), 9 (Pl. 82: 33, Pl. 84: 13-14), and 10 (Pl. 82: 18, 36, 51, Pl. 83: 16, 42-43, 46, Pl. 84: 11, 22, 35). The design is most frequently associated with design class 3D1 (below), and design classes 3E1 and 3E5 – the Canaanite variations of design class 3E (below).

§IVA 3d. Design class 3D – Cartouches

As in the previous chapters, a distinction is made here between a simple oblong ring (3D1), an actual cartouche (3D2), and varia (3D3).

§IVA 3d1. Design class 3D1 – simple oblong ring

The examples of design class 3D1 presented by Tufnell (1984: Pl. 17) show the frequent combination of this design with design class 3C, and with various types of continuous scroll borders, the latter showing inspiration from late Middle Kingdom scarabs (above, §IA 3d). Examples depicting design class 3D1, which do not display early-series or Egyptian Second Intermediate Period characteristics, occurs in the late Palestinian series on seven examples from Jericho (Pl. 85: 1-7), four from Tell el-Farʿah (S) (Pl. 85: 8-11), three from Gezer (Pl. 85: 12-14), three from Lachish (Pl. 85: 15-17), and eleven from Tell el-ʿAjjul (Pl. 85: 18-28).

Two examples bearing the design, one from Tell el-Farʿah (S) (Price Williams 1977: Fig. 48: 4) and one from Tell el-ʿAjjul (Keel 1997: 337, no. 689), are late Middle Kingdom heirlooms considering the type of scroll border enclosing the oblong rings, the signs *nfr r*^c enclosed in the rings, and the scarabs' features. Two examples, one from Lachish (Tufnell 1958: Pl. 34: 188), and one from Tell el-ʿAjjul (Keel 1997: 405, no. 881) are corwoids of the type

⁷⁹⁰ See Ben-Tor 2004c: 35-37, Fig. 9.

⁷⁹¹ See e.g. Keel 1997: 115-525, nos. 30, 1241 from Tell el-ʿAjjul, and Tufnell 1958: Pl. 30: 21 from Lachish, two of them listed above as displaying design class 3C.

⁷⁹² E.g. Petrie and Brunton 1924: Pl. 43: 2 from Mayana depicting the typical Second Intermediate Period pattern of design class 4 (above, §IIA 4); Brunton 1937: Pl. 69: 51 from Mostagedda and Vercoutter 1970: Pl. 26: 11 from Tomb KT 2 Mirgissa, both depicting the Second Intermediate Period form of *rdi-r*^c; Keel 1997: 525, no. 1241 from Tell el-ʿAjjul depicting a Second Intermediate Period variation of design class 3B1c (above). The example from Harageh (Kemp and Merrilllees 1980: 19, Fig. 7: Ash. 1914.761) depicting *nb t3wy r*^c next to an S spiral, both enclosed in oval rings, has its closest parallels on scarabs bearing the name of Apophis and parallels bearing the enigmatic *n-k3-r*^c (Tufnell 1984: Pl. 62: 3439-3441, 3445; Hornung and Staehelin 1976: Pl. 14: 152).

associated with King Apophis (above, §IIB), which argue for an Egyptian Second Intermediate Period origin. The Egyptian origin of the Lachish example is further indicated by the signs $k3\ r^c$ enclosed in the ring (a variation of the more common $n-k3-r^c$).⁷⁹³ The other examples listed above display characteristics that strongly argue for a Canaanite origin. These include combination of the oblong ring with Canaanite designs like 3C (Pl. 85: 1-6, 8, 10, 13-14, 16-17, 19-25), 3B2 (Pl. 85: 9), and 10 (Pl. 85: 14, 20).

§IVA 3d2. Design class 3D2 – actual cartouches

Design scarabs depicting an actual cartouche are less common than those depicting an oblong ring; the late Palestinian series yielded six examples from Jericho (Pl. 85: 29-34), one from Tell el-Far`ah (S) (Pl. 85: 35), two from Gezer (Pl. 85: 36-37), five from Lachish (Pl. 85: 38-42), and five from Tell el-`Ajjul (Pl. 85: 43-54, Pl. 86: 1-2).⁷⁹⁴ Like the oblong ring, the cartouche is often combined with variations of design class 3C (Pl. 85: 30, 33, 37, 41, 44, Pl. 86: 2). Two examples (Pl. 85: 36, 45) depict the signs $k3$ and lpr enclosed in the cartouche, suggesting possible imitations of the throne name of Senwosret I (above, §IIA 3d).⁷⁹⁵

Two examples display imitations of royal-name scarabs bearing the throne name of Amenemhat III (Pl. 85: 29, 35);⁷⁹⁶ both were erroneously considered as royal-name scarabs of $m3^c-ib-r^c$ (see Ward 1987: 521-22). One example (Pl. 85: 39) displays the cartouche surmounted by the name of Ptah (above, design class 3B8); two similar examples are presented by Keel (2002: Figs. 5, 11). One example (Pl. 85: 34) displays a unique combination of the cartouche with design class 6A.

§IVA 3d3. Design class 3D3 – varia

Two unusual variations of the cartouche occur in the late Palestinian series, the first depicting only the upper part of an oblong ring (above, §IIA 3d3) and the second depicting a square frame. The first variation is attested on one example from Jericho (Pl. 86: 3), one from Azor (Pl. 86: 4), and three from Tell el-`Ajjul (Pl. 86: 5-7), and the second variation occurs on four examples from Tell el-`Ajjul (Pl. 86: 8-11).⁷⁹⁷ Two examples of the first variation depict a nfr sign enclosed in the frame (Pl. 86: 3, 7), and two examples of the second variation depict two nfr signs enclosed in the frame (Pl. 86: 8, 10). The source of inspiration for nfr signs enclosed in the square frames is unclear; their Canaanite origin is indicated by the complete absence of such examples in Egypt. For the Canaanite origin of the former design see above, §IIA 3d3.

§IVA 3e. Design class 3E – panels

The plates assembled by Tufnell depicting variations of panel designs show the relative popularity of subclasses 3E1 and 3E5, the almost complete absence of subclasses 3E2 and 3E3, and the rare occurrence of subclass 3E4 except at Tell el-`Ajjul (Tufnell 1984: 123, Pls. 19-20). The Canaanite origin of subclasses 3E1 and 3E5, and the Egyptian origin of subclasses 3E2, 3E3 and 3E4 were discussed above (§IIA 3e, §IIIA 3e). The discussion below does not include subclasses 3E2 and 3E3, as the former occurs in the Palestinian series only on isolated Second Intermediate Period royal-name scarabs (Tufnell 1984: Pl. 19: 1849-1851), and the latter is completely absent.

§IVA 3e1. Design class 3E1 – three or more signs in margins

This design, which first occurs in the early Palestinian series, is attested in the late series on one example from Jericho (Pl. 86: 12),⁷⁹⁸ three from Tell el-Far`ah (S) (Pl. 86: 13-15), four from Lachish (Pl. 86: 16-19),⁷⁹⁹ and six from Tell el-`Ajjul (Pl. 86: 20-25).⁸⁰⁰ Most these examples display the design in combination with design class 3C, supporting its Canaanite origin. The initial occurrence of the design in the early Palestinian series was demonstrated above. Its continuing production in the late series is indicated by the features of some examples (below, §IVB), and by the absence of early characteristics. The number of examples found in the late series suggests a decline in the

⁷⁹³ See e.g. Tufnell 1984: Pl. 64: 3521, 3522, and above, §IIA 3d1-2.

⁷⁹⁴ The site yielded also five examples displaying Second Intermediate Period Egyptian characteristics (Keel 1997: 115-475, nos. 30, 326, 348, 1032, 1083), and one example displaying early-series characteristics (Pl. 58: 14).

⁷⁹⁵ Two additional examples from Tell el-`Ajjul (Keel 1997: 221-475, nos. 348, 1083) display characteristics suggesting a Second Intermediate Period Egyptian origin.

⁷⁹⁶ An additional example from Tell el-`Ajjul (Keel 1997: 213, no. 326) displays the sign r at the bottom of the base, which argues for a Second Intermediate Period Egyptian origin.

⁷⁹⁷ Two additional examples display early-series characteristics (Pl. 57: 17-18).

⁷⁹⁸ An additional example displays early-series characteristics (Pl. 57: 28).

⁷⁹⁹ Two additional examples from the site display early series characteristics (Pl. 56: 42, Pl. 57: 30).

⁸⁰⁰ Four additional examples display early-series characteristics (Pl. 57: 31-34). The date of another example from the site (Keel 1997: 449, no. 1014) is difficult to determine.

popularity of the design during the later phases of the MBIIB. As noted above (§IIB 1), design class 3E1 is attested on royal-name scarabs of Khyan, Yaqubhar, and Maaibre, most probably inspired by Canaanite scarabs.

§IVA 3e2. Design class 3E4 – cross bars in margins

As noted above (§IIA 3e, §IIB 1), subclass 3E4, like 3E1, occurs on both design and royal-name scarabs unlike subclasses 3E2 and 3E3, which are not attested on design scarabs. However, unlike subclass 3E1, subclass 3E4 does not seem to occur on Canaanite scarabs; design scarabs bearing the design in the Palestinian series are most probably Egyptian Second Intermediate Period imports (above, §IIA 3e). This is supported by the almost complete absence of such examples in Palestine except at Tell el-`Ajjul, the site that yielded by far the largest number of Egyptian Second Intermediate Period imports (below), including royal-name scarabs (Weinstein 1981: 8-10; 1991: 107-108). When occurring on design scarabs, the cross bars in margins flank almost exclusively design classes 6C3, and 3C (Tufnell 1984: Pl. 20).⁸⁰¹

Tell el-`Ajjul yielded twenty design scarabs bearing subclass 3E4 (Keel 1997: 109-511, nos. 13, 75, 248, 260, 384, 499, 506, 537, 538, 566, 568, 673, 674, 767, 773, 821, 839, 849, 883, 1193), fifteen of them displaying it in combination with design class 6C3 (Keel 1997: 109-511, nos. 13, 75, 248, 260, 384, 499, 506, 537, 538, 568, 673, 821, 839, 849, 1193), four displaying it in combination with design class 3C (Keel 1997: 295-405, nos. 566, 767, 773, 883), and one displaying it in combination with design class 2B (Keel 1997: 333, no. 674).⁸⁰² Except for Tell el-`Ajjul the late Palestinian series yielded only two examples from Tell el-Far`ah (S) both displaying it in combination with design class 6C3 (Price Williams 1977: Fig. 44: 8, Fig. 59: 1), one from Lachish displaying it in combination with design class 3C (Tufnell 1958: Pl. 30: 34), and one from Jericho displaying it in combination with design class 6C3 (Kirkbride 1965: Fig. 295: 2). The latter comes from group IV at the site, arguing for the relatively late Second Intermediate Period date of subclass 3E4, which has implications on the sequence and chronology of Second Intermediate Period royal-name scarabs (above, §IIB 1). As these scarabs are most probably Egyptian imports they are not presented in the plates of this study.

§IVA 3e3. Design class 3E5 – “shrine”

As demonstrated above (§IIIA 3e2) the Canaanite origin of subclass 3E5 is indicated by its almost complete absence in Egypt, and by its close association with design class 3C. It was also demonstrated above that the design is characteristic of the early Palestinian series. The late series yielded four examples from Jericho (**Pl. 58: 4-5, 10-11**) and five from Tell el-`Ajjul (**Pl. 58: 13-16, Pl. 86: 26**); the design is not present at Gezer, Lachish, and Tell el-Far`ah (S). Moreover, all of the Jericho examples and four of the Tell el-`Ajjul examples display early-series characteristics (**Pl. 58: 4-5, 10-11, 13-16**), which argue against the continuation of the design into the later phases of the MBIIB except in rare cases like an example from Tell el-`Ajjul that does not display early characteristics (**Pl. 86: 26**), and two scarabs of the Green Jasper group from Megiddo and Tel Rehov (**Pl. 86: 27-28**).

Summing up design class 3 in the late Palestinian series, continuity from the early series is attested in the case of many designs (e.g. design classes 3B1b, 3B2, 3B3b, 3B3d, 3B4, 3B5, 3B6, 3B8, 3C, 3D1, 3E1), indicating the continuing local production of Egyptian Middle Kingdom designs and early Canaanite designs in the later phases of the MBIIB. There are, however, also changes from the early series manifested especially in the considerable decrease of misrendered signs and pseudo hieroglyphs that dominate the early series (in particular design classes 3A3 and 3A4). Also notable are 1. The similarity in the popularity of particular designs between the late Palestinian series and the Second Intermediate Period Egyptian series (e.g. design classes 3A1, 3B1c, 3B3c, 3B4, 3B5). 2. The number of Second Intermediate Period Egyptian imports found at Tell el-`Ajjul (e.g. design classes 3B1c, 3B4, 3B5, 3E4) in comparison with other sites where hardly any examples are attested.

§IVA 4. Design class 4 – concentric circles

The popularity of design class 4 in the early Palestinian series was demonstrated above, as well as the Canaanite origin of most examples found in Palestine (§IIIA 4). The late series yielded five examples that do not display early-series characteristics at Jericho (**Pl. 86: 29-33**),⁸⁰³ six at Tell el-Far`ah (S) (**Pl. 86: 34-38, Pl. 87: 1**),⁸⁰⁴ four at

⁸⁰¹ A single example depicting it with linked spirals (design class 2B) was found at Tell el-`Ajjul (Tufnell 1984: Pl. 20: 1860).

⁸⁰² A scarab from Tell el-`Ajjul categorized by Tufnell under design class 3E4 (1984: Pl. 20: 1861) is in fact an early Middle Kingdom Egyptian heirloom displaying a Montet Jar type variation of design class 4. See the typical Montet Jar type features of this scarab in Keel 1997: 379, no. 805, which confirm the early Middle Kingdom date of the scarab.

⁸⁰³ The site yielded also nine examples displaying early-series characteristics (Kirkbride 1965: Fig. 293: 1, 15, Fig. 294: 6, 10, Fig. 297: 7, Fig. 298: 5, Fig. 299: 1, 11, Fig. 303: 2).

Gezer (Pl. 87: 2-5),⁸⁰⁵ seven at Lachish (Pl. 87: 6-12),⁸⁰⁶ and twenty-one at Tell el-`Ajjul (Pl. 87: 13-33).⁸⁰⁷ These examples indicate the continuing production of Canaanite scarabs bearing concentric circles in the later phases of the MBIIB. Tell el-`Ajjul also yielded a Montet-Jar type heirloom (Keel 1997: 379, no. 805), as well as six examples displaying Second Intermediate Period Egyptian characteristics (Keel 1997: 165-425, nos. 178, 179, 285, 365, 450, 948). The latter are not attested elsewhere in Palestine except for a possible example at Gezer (Giveon 1985: 122-23, no. 39). Some of the late-series examples depict cross-like patterns similar to those attested in the early series (Pl. 86: 30), sometimes not as well executed as their early prototypes (Pl. 87: 17-18, 21).⁸⁰⁸ The late series include also patterns that have no parallels elsewhere (Pl. 86: 34-35, Pl. 87: 1, 15-16, 23, 32).

The scarabs listed above include also examples depicting borders of concentric circles, which first occur in the early series (above, §IIIA 4), gain in popularity in the late series, and are also attested on Second Intermediate Period royal-name scarabs (above, §IIB 1). These examples depict the border enclosing a *nfr* sign (Pl. 86: 31-32, 37; Pl. 87: 4, 7, 33), a group of signs (Pl. 86: 33, Pl. 87: 6), sometimes enclosed in a cartouche (Pl. 87: 9-10), or a geometric motif (Pl. 87: 2, 27); a unique example from Tell el-`Ajjul depicts the border enclosing a falcon on a *nb* sign (Pl. 87: 32).

§IVA 5. Design class 5 – cross patterns

The popularity of locally produced cross patterns in the early Palestinian series was discussed above (§IIIA 5). The number of examples found in the late series that do not display early-series characteristics argues for a decline in the popularity of this Middle Kingdom design in the later phases of the MBIIB. These examples include three scarabs from the later groups at Jericho (Pl. 87: 34-36), one from Tell el-Far`ah (S) (Pl. 87: 37),⁸⁰⁹ and eight from Tell el-`Ajjul (Pl. 87: 38-45).⁸¹⁰ Four examples were found at Lachish (Tufnell 1958: Pls. 30-32: 10, 108, 111, 112) all of them displaying early-series characteristics. The evidence from the late Palestinian series thus argues that the production of cross patterns on Canaanite scarabs in the later phases of the MBIIB continued on a small scale compared with the early series. As demonstrated above (§IIA 5) the design is not attested on Egyptian Second Intermediate Period scarabs.

§IVA 6. Design class 6 – coiled and “woven” patterns

The discussion below presents the distribution of Tufnell’s subclasses of design class 6 in the late Palestinian series.

§IVA 6a. Design class 6A – single line thread

As noted above (§IIIA 6a1) design class 6A is not very popular in the Palestinian series, and most examples display Egyptian late Middle Kingdom or Canaanite early-series characteristics, even when found in the late series. Three exceptions from the late series are a scarab from Jericho (Pl. 88: 1), a scarab from Tell el-Far`ah (S) (Pl. 88: 2), and a scarab from Tell el-`Ajjul (Pl. 88: 3). Two of these scarabs display unique combinations: the Jericho scarab depicts the looped thread flanking a cartouche that surrounds a meaningless combination of signs, and the Tell el-`Ajjul scarab depicts the design in combination with design class 3B6. The scarab from Tell el-Far`ah (S) depicts the design in combination with the sign of union, which is known from late Middle Kingdom scarabs (Pl. 13: 1, 6). Yet, the misrendered *h*^c sign at the top, and the small vertical lines filling the space inside the out-curved papyrus plants argue against a late Middle Kingdom origin for this scarab (above, §IA 6a1). These three examples suggest a small-scale production of scarabs depicting design class 6A in the later phases of the MBIIB. The only examples depicting single line loops that may date from the later phases of the MBIIB come from Tell el-Far`ah (S) (Pl. 88: 4) and Megiddo (Pl. 88: 5).

⁸⁰⁴ Two additional examples from the site display early-series characteristics (Petrie 1930: Pl. 10: 94; Price Williams 1977: Fig. 107: 1).

⁸⁰⁵ Two additional examples from the site display Egyptian Second Intermediate Period characteristics (Giveon 1985: 122-23, no. 39), and early-series characteristics (Rowe 1936, Pl. 2: 75).

⁸⁰⁶ Two additional examples from the site display early-series characteristics (Tufnell 1958: Pls. 30-32: 10, 108).

⁸⁰⁷ The site also yielded seven examples displaying early-series characteristics (Keel 1997: 295-513, nos. 563, 623, 636, 823, 926, 931, 1200).

⁸⁰⁸ See e.g. Tufnell 1984: 21: 1948, 1949, 1950.

⁸⁰⁹ Three additional examples from the site display early-series characteristics (Petrie 1930: Pl. 10: 106; Price Williams 1977: Fig. 15: 4, Fig. 107: 1).

⁸¹⁰ Seven additional examples from the site display early-series characteristics (Keel 1997: 295-425, nos. 563, 623, 633, 744, 869, 931, 945); one of them (Keel 1997: 425, no. 945) displays characteristics of the Omega group.

§IVA 6b1. Design class 6B2 – convoluted coils

The almost complete absence of subclass 6B1 in the Palestinian series was discussed above (§IIIA 6b1), where it was also noted that most examples found in Palestine depict knot-like designs categorized by Tufnell under subclass 6B2 (1984: Pls. 24-25). It was also noted above that Tufnell's distinction between subclasses 6B2a (central x cross) and 6B2b (central bar) is of no significance, as both occur in the early series and gain in popularity in the late series. The largely Canaanite production of these scarabs is indicated by the almost complete absence of these patterns on Middle Kingdom Egyptian scarabs and their rare occurrence in Second Intermediate Period Egypt (§IA 6b1, §IIA 6b1).

Patterns categorized here under subclass 6B2 are attested in the late series on thirty-three examples from Tell el-`Ajjul (Pl. 88: 6-38), seven from Gezer (Pl. 88: 39-45), five from Jericho (Pl. 88: 46-50), four from Tell el-Far`ah (S) (Pl. 89: 1-4),⁸¹¹ and two from Lachish (Pl. 89: 5-6). The coiled patterns on these scarabs are in most cases crude variations of the elaborate late Middle Kingdom patterns of design class 6B. They are usually depicted with no other motifs except for a small number of examples depicting them enclosed in a rope border (Pl. 88: 20, 40, 44, 50, Pl. 89: 4). A single example from Jericho depicts the coiled pattern enclosed in a continuous scroll border and in combination with a hieroglyph (Pl. 88: 49). The combination with hieroglyphs, which is occasionally found on late Middle Kingdom examples of design class 6B (Pl. 14: 5, 8, 19-21, 24, 31, 42), is attested also on one example from Tell el-`Ajjul that may be a late Middle Kingdom import (Keel 1997: 387, no. 829).⁸¹²

§IVA 6b2. Design class 6B3 – convoluted coils, varia

The particular pattern categorized in this study under design class 6B3, depicting convoluted coils with decorated ovals at both ends, is attested on a small number of examples in the late Palestinian series. These include one example from Gezer (Pl. 89: 7), one from Tell el-Far`ah (S) (Pl. 89: 8), two from Lachish (Pl. 89: 9-10), and four from Tell el-`Ajjul (Pl. 89: 11-14). All these examples display knot-like convoluted coils identical to those occurring on examples displaying design class 6B2, which argue for their Canaanite origin. It is interesting to note that decorated ovals occur in the late Palestinian series also with other designs such as 3A1 (Pl. 76: 29), 3C (Pl. 82: 24), 6C1 (Pl. 89: 27, 29), 9B (Pl. 96: 42), or flanking a group of signs (Keel 1997: 393, no. 844). The Canaanite origin of these combinations is indicated by their complete absence on Egyptian scarabs and by the Canaanite origin of design classes 3C, 6C1 and 9B (below).

§IVA 6c. Design class 6C – encompassed coils

As demonstrated above (§IIIA 6c), all three subclasses of design class 6C are attested in Palestine only in the late series. The discussion below argues for the Canaanite origin of subclasses 6C1 and 6C2, and the most likely Egyptian origin of 6C3.

§IVA 6c1. Design class 6C1 – encompasses, central + cross

The Canaanite origin of this design is indicated by its distribution in Palestine compared with Egypt and by the fact that most examples from Egypt come from Second Intermediate Period contexts in the eastern Delta (above, §IIA 6c1-2). The complete absence of this design in the early series, and its initial occurrence at Jericho in group IV (below) argue for its production exclusively in the later phases of the MBIIB. The design is attested on four examples from Jericho (Pl. 89: 15-18),⁸¹³ four from Tell el-Far`ah (S) (Pl. 89: 19-22), one example each from Lachish (Pl. 89: 23), and Gezer (Pl. 89: 24), and thirteen from Tell el-`Ajjul (Pl. 89: 25-37). The large number of examples from Tell el-`Ajjul, though far exceeding the number of examples from any other site, does not seem to indicate an Egyptian Second Intermediate Period origin considering the number and distribution of examples bearing the design in Egypt (above, §IIA 6c1).

§IVA 6c2. Design class 6C2 – encompassed, central twist

The distribution of design 6C2 is almost identical to that of 6C1. The larger number of examples of 6C2 in Tufnell's study (1984: Pls. 26-27) is due to the fact that the patterns categorized by her under this design class are not as clear-cut as those categorized under design class 6C1, and some should be assigned to other design classes. These include examples displaying a stylized s3 sign instead of the central twist (design 3A3),⁸¹⁴ examples display-

⁸¹¹ An additional example from the site is a cowroid of the type associated with King Apophis (Price Williams 1977: Fig. 63: 4), which argues for an Egyptian Second Intermediate Period origin.

⁸¹² Unfortunately there is no record of the scarab's features.

⁸¹³ For the late MBIIB date of the scarab presented in Pl. 89: 15 (Kirkbride 1965: Fig. 283: 4) see above, §IIIA 6c1.

⁸¹⁴ See Tufnell 1984: Pl. 27: 2161, 2163, 2165, and above, Pl. 77: 1, 9, 11.

ing decorated ovals (design 6B3),⁸¹⁵ or three-stem papyrus plants (design 1E),⁸¹⁶ flanking the central twist, and those depicting the central twist vertically, usually flanked by design class 3E4 (design 6C3).⁸¹⁷ These patterns are not included in the examples listed below, and thus design class 6C2 is attested in the late series on three examples from Jericho (**Pl. 89: 38-40**), three from Tell el-Far`ah (S) (**Pl. 89: 41-43**), four from Lachish (**Pl. 89: 44-47**), two from Gezer (**Pl. 89: 48**, **Pl. 90: 1**), and nineteen from Tell el-`Ajjul (**Pl. 90: 2-20**). As in the case of design class 6C1, the large number of examples at Tell el-`Ajjul compared with other Palestinian sites does not suggest an Egyptian Second Intermediate Period origin considering the number and distribution of examples bearing the design in Egypt. Two of the examples at Tell el-`Ajjul (**Pl. 90: 13, 17**) are cowroids (Keel 1997: 387- 507, nos. 826, 1185) similar to the ones associated with King Apophis (Keel 1995a: 79, §189-90), and one of the Lachish examples (**Pl. 89: 47**) is a cowroid of the type associated with King Apophis (Tufnell 1958: Pl. 34: 194). These examples suggest occasional Canaanite imitations of cowroids (see design class 10D2 below) rather than an Egyptian Second Intermediate Period imitation of design class 6C2.

§IVA 6c3. Design class 6C3 – encompassed, central cable

The Egyptian Second Intermediate Period origin of encompassed cables flanked by design class 3E4 is indicated by the almost complete absence of this design in the Palestinian series except for Tell el-`Ajjul, which yielded eleven examples (Keel 1997: 109-511, nos. 13, 384, 499, 506, 537, 538, 539, 673, 821, 849, 1193). Other sites in Palestine yielded only isolated examples: one at Jericho (group IV) (Kirkbride 1965: Fig. 295: 2), two at Tell el-Far`ah (S) (Price Williams 1977: Fig. 44: 8, Fig. 59: 1), two at Megiddo (Guy 1938: Pl. 152: 3, Pl. 176: 1), and one at Beth Shan (Oren 1973: Fig. 51: 1). The late Palestinian series yielded also variations depicting a central cable flanked by designs other than 3E4, which are most probably of Canaanite origin considering the pseudo hieroglyphs (**Pl. 90: 21-23**), variations of design class 3C (**Pl. 90: 24**), or crude coiled patterns (**Pl. 90: 25-26**) flanking the cable. As in the case of design class 6C2, the example from Tell el-`Ajjul consisting a cowroid of the type associated with King Apophis (Keel 1997: 375, no. 972 = **Pl. 90: 23**) suggests occasional Canaanite imitations of this type of Cowroid.

§IVA 7. Design class 7 – Scroll borders

The discussion below presents the distribution of Tufnell's subclasses of design class 7 in the late Palestinian series. As in the case of the previous chapters, Tufnell's distinction between hooked and joined scrolls is not considered here.

§IVA 7a1. Design class 7A1 – continuous, round scrolls

As demonstrated above (§IIIA 7a1), continuous round scroll borders are not very popular in the Palestinian series. Yet, they are attested on Canaanite scarabs in both the early and late series, usually enclosing Egyptian signs and symbols and rarely patterns of scrolls and spirals (Tufnell 1984: Pl. 28). The late series yielded two examples from Jericho (**Pl. 90: 27-28**), three from Tell el-Far`ah (S) (**Pl. 90: 29-31**),⁸¹⁸ two from Gezer (**Pl. 90: 32-33**), and five from Tell el-`Ajjul (**Pl. 90: 34-38**).⁸¹⁹

One of the Gezer examples depicts the border enclosing the throne name of Senwosret I (**Pl. 90: 32**). The Second Intermediate Period date of scarabs bearing the name of this king, and the inconclusive origin (Egyptian or Canaanite) of many examples were argued above (§IIA 7a-b). Most examples listed above display the scroll borders enclosing Egyptian signs, sometimes misrendered (**Pl. 90: 28, 33, 37**), the latter supporting their Canaanite origin.

§IVA 7a2. Design class 7A2 – continuous, oblong scrolls

Like design class 7A1, design class 7A2 is attested on Canaanite scarabs in the early as well as the late Palestinian series, most examples coming from the late series (Tufnell 1984: 128). Eight examples come from Jericho (**Pl. 91: 1-8**), four from Tell el-Far`ah (S) (**Pl. 91: 9-12**), three from Gezer (**Pl. 91: 13-15**), three from Lachish (**Pl. 91: 16-18**),⁸²⁰ and seven from Tell el-`Ajjul (**Pl. 91: 19-25**).⁸²¹

⁸¹⁵ See Tufnell 1984: Pl. 27: 2169, and above, **Pl. 89: 8**.

⁸¹⁶ See Tufnell 1984: Pl. 27: 2191, and above, **Pl. 74: 31**.

⁸¹⁷ See Tufnell 1984: Pl. 27: 2173, 2174, 2175, 2178, 2193, 2197, 2201, and above, **Pl. 36: 24-26, 28-29**.

⁸¹⁸ The site yielded also an example displaying Egyptian late Middle Kingdom characteristics (Price Williams 1977: Fig. 48: 4).

⁸¹⁹ Two additional examples from the site display characteristics suggesting an Egyptian origin. One (Keel 1997: 153, no. 139) displays the particular form of the sign *k3* occurring on Second Intermediate Period scarabs, and one (Keel 1997: 337, no. 689) displays a design and features suggesting a late Middle Kingdom origin (**Pl. 15: 19-20**; Martin 1971: Pl. 1: 19-20, 25).

⁸²⁰ The site yielded also an example displaying early-series characteristics (Tufnell 1958: Pl. 30: 23; see **Pl. 61: 14** above).

⁸²¹ The site yielded also an example displaying early-series characteristics (Keel 1997: 383, no. 820; see **Pl. 61: 15** above).

Three additional examples from the late series display designs that argue for an Egyptian late Middle Kingdom origin: two from Tell el-`Ajjul (Keel 1997: 281-383, nos. 521, 817) depicting the border enclosing the sign *ḥfr*, and one from Tell el-Far`ah (S) (Price Williams 1977: Fig. 44: 2) depicting it enclosing a small vertical line (see **Pl. 15: 41** above). The Canaanite origin of the other examples is indicated by the particular designs enclosed in the borders, which include misrendered signs (**Pl. 91: 1, 6, 8, 13, 22**), variations of design class 3C (**Pl. 91: 4, 9, 14, 17, 20-21**), design class 3B2 (**Pl. 91: 11**), and a square frame enclosing pseudo hieroglyphs (**Pl. 91: 22**). None of the scarabs listed above display characteristics suggesting Egyptian Second Intermediate Period origin.

§IVA 7b. Design class 7B – paired scroll borders with a loop at the top and a curved line at the base

As noted above (§IIIA 7b) this late Middle Kingdom design is well attested in the Palestinian series on Canaanite scarabs in both the early and late series. The distribution of the various subclasses of this design in the late series is presented below.

§IVA 7b1. Design class 7B1(ii) – paired scrolls, one pair, oblong

The Canaanite origin of the Palestinian examples displaying this design, and the fact that most examples come from the late series, were discussed above (§IIIA 7b1). Nine examples bearing the design were found in the late groups at Jericho (**Pl. 91: 26-34**), nine were found at Tell el-`Ajjul (**Pl. 91: 35-43**), one at Tell el-Far`ah (S) (**Pl. 91: 44**), one at Lachish (**Pl. 91: 45**), and one at Gezer (**Pl. 91: 46**). As in the early series, two examples depict the border enclosing design class 3B6 (**Pl. 91: 33, 45**), however, most examples in the late series depict the border enclosing a single hieroglyph (**Pl. 91: 27, 34-36, 38-44, 46**). These hieroglyphs are usually depicted in the correct form, yet misrendered signs are also attested (**Pl. 91: 29-30, 32**). A unique example at Jericho depicts the border enclosing a pattern of linked spirals (**Pl. 91: 26**).

§IVA 7b2. Design class 7B2(ii) – paired scrolls, two pairs, oblong

Like design class 7B1 design class 7B2 originated on Egyptian Middle Kingdom scarabs yet it is far more common in the Palestinian series, where most examples come from the late series. The distribution of the design in the late series is somewhat unusual, as ten examples come from the late groups at Jericho (**Pl. 92: 2-10**), yet only three were found at Tell el-`Ajjul (**Pl. 92: 12-14**), two come from Gezer (**Pl. 92: 15-16**), one from Lachish (**Pl. 92: 17**), one from Aphek (**Pl. 92: 1**), and not a single example was found at Tell el-Far`ah (S). The Canaanite origin of the examples found in Palestine⁸²² is indicated by the almost complete absence of the design on late Middle Kingdom scarabs (above, §IA 7b2) and by Canaanite characteristics like misrendered signs (**Pl. 92: 2, 6-8, 9, 14**), or design class 3B8 (**Pl. 92: 1**). Most examples depict the scroll border enclosing three hieroglyphs displayed in a vertical line, and less frequently only two hieroglyphs (**Pl. 92: 4, 7, 9**).

§IVA 7b3. Design class 7B3(i) – paired scrolls, three pairs, round

As noted above (§IA 7b3, §IIA 7b, §IIIA 7b3) the design is extremely rare in both Egypt and Palestine. For the Canaanite origin of the three examples found in the Palestinian series see the discussion of the design in the early series (above, §IIIA 7b3).

Design class 7B3(ii) – paired scrolls, three pairs, oblong

Three-paired scroll borders are, as noted above (§IA 7b3, §IIIA 7b3), the most common subclass of design class 7B on both Egyptian late Middle Kingdom scarabs and Canaanite scarabs in the Palestinian series. Attested on Canaanite scarabs already in the early series (above), the design gains in popularity in the late series where it is found on eight examples from Jericho (**Pl. 92: 18-25**),⁸²³ five from Tell el-Far`ah (S) (**Pl. 92: 26-30**), eight from Lachish (**Pl. 92: 31-38**), and nine from Tell el-`Ajjul (**Pl. 92: 39-47**). As in the case of the early series, many examples display the three-paired scroll border enclosing designs that indicate a Canaanite origin, such as misrendered signs (**Pl. 92: 18-20, 24-25, 32, 38-40**), designs 3C (**Pl. 92: 29, 46-47**), and 3B8 (**Pl. 92: 33**).⁸²⁴ Moreover, one of the Tell el-`Ajjul examples (**Pl. 92: 39**) belongs to the distinctive Canaanite green jasper group (Keel 1989: 211-242). The only Egyptian imports are a Second Intermediate Period royal-name scarab of Ahetepre from Lachish (Tufnell 1958: Pl. 32: 139), and late Middle Kingdom heirlooms consisting exclusively of private-name scarabs, one from

⁸²² The only exception is the late Middle Kingdom private-name scarab from Tell el-`Ajjul (Keel 1997: 401, no. 871; see above, §IA 7b2).

⁸²³ The site yielded also an example displaying early-series characteristics (Kirkbride 1965: Fig. 297: 9). See **Pl. 61: 27** above.

⁸²⁴ For more examples see Keel 2002: Figs. 2, 4, 5, 7-11, 14.

Lachish (Tufnell 1958: Pl. 30: 41), one from Tell el-Far`ah (S) (Price Williams 1977: Fig. 63: 3), and two from Tell el-`Ajjul (Keel 1997: 241-455, nos. 403, 1030).⁸²⁵

§IVA 7b4. Design class 7B4(i) – paired scrolls, four (or more) pairs, round

As noted above (§IIIA 7b4), this design is extremely rare in Palestine where only isolated examples were found. The late series yielded only a single example from Tell el-Far`ah (S) (**Pl. 93: 1**), the Canaanite origin of which is indicated by the misrendered signs enclosed in the border.

Design class 7B4(ii) – paired scrolls, four (or more) pairs, oblong

The Palestinian series include only a small number of examples displaying design class 7B4(ii), all coming from the late series. Four examples were found at Jericho (**Pl. 93: 2-5**), one at Lachish (**Pl. 93: 6**), and two at Tell el-`Ajjul (**Pl. 93: 7-8**). All these examples display misrendered signs enclosed in the scroll borders, which indicate their Canaanite origin.

§IVA 7c. Design class 7C – paired scrolls, with broken or omitted loop at the top and/or base

As noted above (§IIIA 7c) this design class, which is characteristic of Second Intermediate Period royal-name and private-name scarabs (§IIB 1,3) is extremely rare on Canaanite scarabs, and occurs in the Palestinian series exclusively in the late series.

§IVA 7c1. Design class 7C2(ii) – paired scrolls, open, two pairs, oblong

As shown in the discussion of the design in the early series (§IIIA 7c1), the isolated example displaying design class 7C2(ii) in the Palestinian series are exclusively Second Intermediate Period royal-name imports from the late series. Only three such examples were found, all from Tell el-`Ajjul (Keel 1997: 151-457, nos. 138, 379, 1035). The small number of examples bearing the design in the Palestinian series on the one hand, and the absence of the design on Canaanite scarabs on the other, confirm its Egyptian origin. The complete absence of the design in the early series argues against a 14th Dynasty date for the royal-name scarabs displaying the design (above, §IIB 1).

§IVA 7c2. Design class 7C3(ii) – paired scrolls, open, three pairs, oblong

Like design class 7C2(ii), design class 7C3(ii) is attested on Second Intermediate Period royal-name scarabs and only rarely occurs in the Palestinian series, exclusively in the late series. Two royal-name scarabs (Tufnell 1984: Pls. 57-59: 3230, 3339), and one private-name scarab (Keel 1997: 295, no. 562) bearing the design were found in the late series. Yet, unlike design class 7C2(ii), two examples from Tell el-`Ajjul depicting design class 7C3(ii) enclosing meaningless groups of signs (**Pl. 93: 9-10**) indicate its adaptation on Canaanite scarabs, albeit on a very small scale.

§IVA 7c3. Design class 7C4 – paired scrolls, open, four pairs, round and oblong

In contrast to design class 7C3, the isolated examples depicting design class 7C4 in the Palestinian series are all local Canaanite productions. Coming exclusively from the late series these examples include a scarab from Jericho depicting oblong scrolls (**Pl. 93: 11**) and two scarabs from Tell el-`Ajjul depicting round scrolls (**Pl. 93: 12-13**). These scarabs do not depict the paired scrolls in the Egyptian manner ending with straight parallel lines, but with lines bent inwards and ending with floral buds (**Pl. 93: 11-12**) or serpents (**Pl. 93: 13**). The Canaanite origin of these scarabs is indicated by the unusual form of the scroll borders as well as by the misrendered signs enclosed in them. Moreover, one of the Tell el-`Ajjul scarabs (**Pl. 93: 13**) belongs to the distinctive green jasper group (Keel 1989: 226-29, no. 33).

Summing up design class 7 in the late Palestinian series it can be shown that most late Middle Kingdom designs first imitated on Canaanite scarabs in the early series gain in popularity on Canaanite scarabs in the late series (e.g. subclasses 7A2, 7B1, 7B2, 7B3). However, the particular subclasses occurring on Second Intermediate Period royal-name scarabs (7C2, 7C3) are extremely rare in Palestine, most examples consisting of Egyptian royal or private name scarabs.

§IVA 7-8. Design class 7+8 – oblong scrolls with rope border

The Canaanite production of all Palestinian examples bearing the combination of rope and scroll borders, and the fact that most examples come from the late groups at Jericho were noted above (§IIIA 7-8). Most combinations of

⁸²⁵ Tell el-`Ajjul yielded also a sealing made by a late Middle Kingdom private-name scarab (Giveon 1985: 108-109, no. 138). The sealing was not found in a clear context.

scroll and rope borders depict the rope border around paired scroll borders (Tufnell 1984: Pl. 33: *passim*), but isolated examples depicting it around continuous scroll borders are also found (Tufnell 1984: Pl. 33: 2379, 2381). The late series yielded fifteen examples bearing design class 7+8 from Jericho (Pl. 93: 14-28), one from Tell el-Far`ah (S) (Pl. 93: 29), one from Lachish (Pl. 93: 30), one from Gezer (Pl. 93: 31), and four from Tell el-`Ajjul (Pl. 93: 32, Pl. 94: 1-3). These examples usually display the rope border enclosing paired scroll borders of all types (from one to four pairs), and occasionally continuous scroll borders (Pl. 93: 14-15, 24). Most examples display the design enclosing misrendered signs (Pl. 93: 15, 18-19, 21, 23, 26, 30-31, Pl. 94: 2-3) or design class 3C (Pl. 93: 16-17, 20, 27, 32), which confirm their Canaanite origin.

§IVA 8. Design class 8 – rope borders

The adaptation of rope borders on Canaanite scarabs already in the early series was demonstrated above (§IIIA 8). The discussion below presents the distribution of the design in the late series, and as in the previous chapters no distinction is made between subclasses 8A and 8B.

§IVA 8a. Design class 8A – twisted strand

The increasing popularity of the rope border in the late Palestinian series is indicated in the plates assembled by Tufnell (1984: Pls. 34-35). Nineteen examples were found in the late groups at Jericho (Pl. 94: 4-22),⁸²⁶ seven at Tell el-Far`ah (S) (Pl. 94: 23-29), nine at Gezer (Pl. 94: 30-39), ten at Lachish (Pl. 94: 40, Pl. 95: 1-8),⁸²⁷ and twenty-one at Tell el-`Ajjul (Pl. 95: 9-29).⁸²⁸ Most examples from the late series display the rope border enclosing designs that argue for a Canaanite origin. These include particular patterns of design classes 1 (Pl. 94: 4, 9, 16, Pl. 95: 17), 2 (Pl. 94: 7, 15, 20, Pl. 95: 23), 3A (Pl. 94: 13, Pl. 95: 19), 3B (Pl. 94: 14, 17, 32, 34, Pl. 95: 1, 3, 20, 26-27), 3C (Pl. 94: 23, 24, 27, 36, 40, Pl. 95: 2, 6), 4 (Pl. 94: 32, 33, Pl. 95: 24), 6 (Pl. 94: 21, 25, 28-31, 35, 39, Pl. 95: 7, 10, 15), 7 (Pl. 94: 11-12), 9 (Pl. 94: 10, 18, 38, Pl. 95: 4-5, 9, 14, 16), 10 (Pl. 94: 9, 19, 24, 26, 37, Pl. 95: 2, 11-12, 14, 18, 21-22, 28-29), and misrendered signs (Pl. 94: 6, 20, 22, Pl. 95: 3, 8, 26).

Subclass 8AA is presented by Tufnell on a single example from Tell el-`Ajjul (1984: Pl. 34: 2428) enclosing an unusual combination of the signs *nfr* and *k3* (Pl. 95: 30). The features of this scarab do not allow establishing its date or origin. Additional examples displaying subclass 8AA include only one scarab from Lachish depicting a triple twisted strand enclosing a kneeling figure holding a branch (Pl. 95: 31), a distinctive Canaanite design (below, §IVA 10c) indicating the occasional production of local imitations of design class 8AA.

§IVA 8b. Design class 8C – full “twisted” cable

The rare occurrence of the full cable border in all series discussed above is also true for the late Palestinian series. As noted in the discussion of the design in the early series (above, §IIIA 8b), three of the four examples presented by Tufnell (1984: Pl. 35: 2473-2475) are probably local productions, a scarab from the early series at Jericho (Pl. 62: 23), a scarab from Tell el-`Ajjul displaying late MBIIB features (Pl. 95: 32), and a scarab from Tell el-Far`ah (S) (Pl. 95: 33). These scarabs attest to the rare occurrence of the full cable border on Canaanite scarabs in both the early and late Palestinian series.

§IVA 9. Design class 9 – Animals and heraldic beasts

As noted above (§IIIA 9) most examples of design class 9 in Palestine come from the late series (Tufnell 1984: Pls. 36-41). The discussion below will attempt to demonstrate that the number of examples attested in the late series and the particular designs they display argue for their Canaanite origin although most of them show strong Egyptian iconographic influence.

The figurative motifs categorized under design classes 9 and 10 in the late Palestinian series are depicted in linear as well as deeply cut hollowed out images, the latter often decorated with cross hatching. The hollowed out engraving technique is not found in the early series, thus generally showing a later trend (Keel 1995a: 130-31). There is not always evidence, however, for a chronological distinction between linear and hollowed out images of the same motifs in the late series (below).

⁸²⁶ The late groups at the site yielded also three examples displaying early-series characteristics (Pl. 62: 16, 21, Pl. 63: 30).

⁸²⁷ The site yielded also an example displaying early-series characteristics (Pl. 60: 6).

⁸²⁸ The site yielded also a late Middle Kingdom *rdi r^c* type example (Keel 1997: 267, no. 483), and an example displaying early-series characteristics (Pl. 62: 22).

§IVA 9a. Design class 9B – antelopes

The distinct stylistic differences between the isolated early and late Middle Kingdom examples depicting a horned animal⁸²⁹ and those found in Middle Bronze Age contexts in Palestine were noted above (§IA 9). The Palestinian examples are not attested in the early series as already noted by Tufnell (1984: 132), yet, their popularity in the late series is indicated in the material assembled by Tufnell from the three sites included in her study (1984: Pl. 36). The design occurs in the late series on eight scarabs from Jericho (Pl. 96: 1-8), seven from Tell el-Far'ah (S) (Pl. 96: 9-15), six from Gezer (Pl. 96: 16-21), four from Lachish (Pl. 96: 22-25), and twenty-two from Tell el-'Ajjul (Pl. 96: 26-42, Pl. 97: 1-5).

Most examples depict the horned animal alone, sometimes with a branch (Pl. 96: 10, 14-16, 18, 20, 22, 24-26, Pl. 97: 3), a misrendered form of the arm hieroglyph (the sign 𓂏) (Pl. 96: 28, 31, 41-42, Pl. 97: 1-2), an unclear geometric motif (Pl. 96: 3-4, 6, 8, 12, 27, 35, 40), or less frequently design class 3C (Pl. 96: 17-18, 37). The horned animal is also depicted with a lion (Pl. 96: 9, 11, 21, 33, 36), a crocodile (Pl. 96: 32, 39), or a uraeus (Pl. 96: 13, 19, 21, 22, 29, Pl. 97: 4-5), the latter sometimes depicted as the animal's tail (Pl. 96: 1-2, 5, 14, 23, 26, 34, 38). The Canaanite origin of the scarabs depicting design class 9B in the late Palestinian series is indicated not only by their number and distribution in Palestine compared with Egypt, but also by the association of the horned animal with Canaanite motifs like design class 3C, the misrendered form of the arm sign, and the branch. This is supported by the long history of the horned animal in the iconography of the Levant and its association with the nude goddess on Syrian cylinder seals (Keel 1995a: 190, § 520; Keel and Uehlinger 1998: 19-20).⁸³⁰ Like other subclasses of design classes 9 and 10 in the late series, the horned animal is attested in linear as well as hollowed out images, the latter often decorated with cross hatching. There is no evidence for a chronological distinction between examples displaying linear and hollowed out engraving in the case of design class 9B.

§IVA 9b. Design class 9C – Cobras confronted

Tufnell categorized under design class 9C various designs depicting confronted cobras flanking a central motif, and divided them into five subclasses according to the central motifs (Tufnell 1984: 132-33, Pls. 37-38). The motifs comprising all subclasses of this design are clearly Egyptian or Egyptianized. Yet the Canaanite origin of almost all examples bearing this design is indicated, as in the case of design class 9B, by their number and distribution in Palestine compared with Egypt, and by some of the associated motifs (below). There is no evidence to determine the reason for the popularity of uraei on Canaanite scarabs or to interpret their meaning. Most examples of design class 9C depict a mixture with other design classes and display the images in hollowed out engraving.

§IVA 9b1. Design class 9C1 – Confronted cobras with signs

This subclass, which should not be confused with subclass 3B1 (above), is attested in the late Palestinian series on three examples from Jericho (Pl. 97: 6-8),⁸³¹ one from Gezer (Pl. 97: 9),⁸³² one from Lachish (Pl. 97: 10), and eight from Tell el-'Ajjul (Pl. 97: 11-18). Most these examples depict the confronted cobras in longitudinal setting flanking a scarab (*lpr*) or a stylized *s3* sign, the former occasionally depicted above the gold sign (*nbw*) (Pl. 97: 6-7, 9, 17) in which case it is difficult to distinguish from design class 3B6 (Tufnell 1984: 132, Pl. 37). A variation depicting the *lpr* between linked cobras and surmounted by confronted cobras was found at Megiddo (Pl. 97: 19). As in the case of other subclasses of design class 9C, most examples of subclass 9C1 display hollowed out images; linear engraving is attested only on isolated examples depicting signs other than the scarab between the cobras (Pl. 97: 14-15, 18).

As noted in the discussion of the design in the Second Intermediate Period series (above, §IIA 9b), an Egyptian origin may be considered for some examples displaying a rope border enclosing the design. The origin of the Palestinian examples depicting the design enclosed in a rope border (Pl. 97: 8)⁸³³ is difficult to determine, especially since none of them comes from Tell el-'Ajjul.

⁸²⁹ For the identification of the different types of horned animals depicted on scarabs see Keel 1990a: 263-66.

⁸³⁰ E.g. Schroer 1989: 134, Figs. 055, 056; Teissier 1996: 58, no. 40. See also Ben-Tor 2004d: 28-29.

⁸³¹ The scarabs presented in Kirkbride 1965: Fig. 290: 7, and Fig. 299: 10 categorized by Tufnell under this design (1984: Pl. 37: 2517, 2519), are better categorized under design class 3B1c.

⁸³² The site yielded also an example displaying characteristics that argue for an Egyptian Second Intermediate Period origin (Pl. 40: 24).

⁸³³ See also Macalister 1912: Pl. 206: 42 from Gezer; Tufnell 1958: Pl. 32: 132 from Lachish; Mizrachi in Kempinski 2002: 339, no. 30, Fig. 9.6 from Kabri.

§IVA 9b2. Design class 9C2 – Cobras confronted with figures

This design class consists of a mixture of design class 9C with design classes 10A and 10C; most examples depict the cobras on either side of a falcon-headed figure, and less frequently a human figure, standing or kneeling. The late series yielded two examples from Jericho (PI. 97: 20-21), one from Tell el-Far`ah (S) (PI. 97: 22), one from Megiddo (PI. 97: 23), and nine from Tell el-`Ajjul (PI. 97: 24-32). Most figures are depicted holding a flower (PI. 97: 21-24, 26, 30-31) some hold a scepter (PI. 97: 25, 29), some are empty handed (PI. 97: 20, 28, 32), and one example depicts the figure holding the tail of the cobra in front of it (PI. 97: 27). Four of the Tell el-`Ajjul examples depict a human figure (PI. 97: 25, 28, 31-32) instead of the falcon-headed figures usually occurring with this design. For the Canaanite origin of the human and falcon-headed figures depicted on these scarabs see design classes 10A and 10C below.

§IVA 9b3. Design class 9C3 – Cobras confronted with hawk(s)

This design depicts the cobras flanking one or two falcons, sometimes with additional motifs (below). The late series yielded five examples bearing the design from Jericho (PI. 98: 1-5), one from Tell el-Far`ah (S) (PI. 98: 6), two from Gezer (PI. 98: 7-8), two from Megiddo (PI. 98: 9-10), and thirteen from Tell el-`Ajjul (PI. 98: 11-23). Most examples depict two cobras flanking a single falcon, and occasionally a pair of confronted falcons (PI. 98: 7, 17, 23). The falcon is sometimes depicted standing on a crocodile (PI. 98: 2; see design class 9D), or a *nb* sign (PI. 98: 11-12, 21), or it is surmounted by another pair of confronted cobras (PI. 98: 11).⁸³⁴ Confronted pairs of falcons are occasionally depicted surmounted by a stylized gold sign (PI. 98: 7, 17). The fact that all Jericho examples come from Groups IV and V may have a chronological significance. Yet, considering the occurrence of subclasses 9C1 and 9C2 already in group III, the possibility of accident of survival in the case of subclass 9C3 should not be ruled out. As falcons are not known to occur as a figurative motif on Egyptian scarabs of the first half of the second millennium, the inspiration for their depiction on Middle Bronze Age Canaanite scarabs may have come from Syrian cylinder seals, where they constitute a common Egyptianized motif (Teissier 1996: 90-93, 150-51).

§IVA 9b4. Design class 9C4 – Cobras confronted with long tails

Unlike all other subclasses of design class 9C, this subclass, depicting confronted cobras with long tails, is usually displayed in a vertical setting (Tufnell 1984: Pl. 38). The motifs customarily flanked by the long-tailed cobras are the scarab or the falcon-headed figure, the latter depicted kneeling or standing (design classes 10A and 10C). The late series include two examples displaying the design from Jericho (PI. 98: 24-25), three from Tell el-Far`ah (S) (PI. 98: 26-28), one from Lachish (PI. 98: 29), one from Megiddo (PI. 98: 30), and four from Tell el-`Ajjul (PI. 98: 31-34). One of the Tell el-`Ajjul examples displays the design in longitudinal setting flanking a scarab, and two human figures with a raised arm flanking the central group (PI. 98: 32).

Like subclass 9C3, subclass 9C4 occurs at Jericho only in groups IV and V. Yet unlike in the case of subclass 9C3 it is more likely to suggest a late MBIIB origin considering the different style of the cobras. The origin of the unique unprovenanced example displaying the long-tailed cobras flanking the formula *nwb-hpr-r^c* (PI. 40: 28)⁸³⁵ is difficult to determine.

§IVA 9b5. Design class 9C5 – Cobras confronted with animals or heraldic beasts

Most examples categorized under this design by Tufnell depict the confronted cobras flanking a lion or a sphinx, and less frequently a horned animal (PI. 98: 35-40, PI. 99: 1-6).⁸³⁶ The design is absent at Jericho, Gezer, and Tell el-Far`ah (S), occurring on one example from Megiddo (PI. 98: 35), one from Lachish (PI. 98: 36), and ten from Tell el-`Ajjul (PI. 98: 37-40, PI. 99: 1-6). This distribution is somewhat misleading since this subclass of design 9C is easily confused with the much more popular design classes 9B, 9E and 9F depicting the horned animal, lion, and various types of sphinx.⁸³⁷ The close similarity between many examples categorized by Tufnell under subclass 9C5 and those categorized under 9B, 9E and 9F suggests the former are better categorized as variations of the latter.

⁸³⁴ An unusual example from Gezer (Giveon 1985: 120-21, no. 30) depicts confronted cobras flanking a pair of addorsed cobras above a *nb* sign.

⁸³⁵ Tufnell 1984: Pl. 63: 3500. This scarab was considered by Ward as a royal-name scarab of the 17th Dynasty, but see above, §IIB 2.

⁸³⁶ The example depicting a crocodile (Tufnell 1984: Pl. 38: 2577) is better categorized under design class 9D (below).

⁸³⁷ See especially examples with a uraeus tail confronting a cobra (E.g. Tufnell 1984: Pls. 38, 40-41: 2573, 2626, 2635, 2643, 2658, 2659, 2661, 2663, 2670).

§IVA 9c. Design class 9D – Crocodiles

Like most examples of design class 9 in the Palestinian series, design class 9D is not attested in the early series. The late series yielded two examples from Jericho (Pl. 99: 7-8), one from Tell el-Far`ah (S) (Pl. 99: 9), four from Lachish (Pl. 99: 10-13), two from Gezer (Pl. 99: 14-15), two from Megiddo (Pl. 99: 16-17), and seventeen from Tell el-`Ajjul (Pl. 99: 18-34).

Although consisting the primary motif of design class 9D, the crocodile is usually accompanied by other motifs, in most cases various subclasses of design classes 9 and 10 (Tufnell 1984: Pl. 39; Keel 1995a: 193-95, §531-35). Like most designs attested on Middle Bronze Age Canaanite scarabs the crocodile is an Egyptianized motif. Yet, unlike many motifs on Canaanite scarabs, which are inspired from late Middle Kingdom prototypes, the crocodile is not attested as a figurative motif⁸³⁸ on Egyptian scarabs of the first half of the second millennium BCE. It is also not attested on Syrian cylinder seals, which occasionally inspired Egyptianized motifs on Middle Bronze Age Canaanite scarabs (Schroer 1985; 1989; Teissier 1996; below §IV10). The veneration of the crocodile in many of the scenes depicted on Canaanite scarabs (Keel 1995a: 193-95, §532-34) was probably motivated by the close cultural interaction between Egypt and Palestine in the Second Intermediate Period. As suggested elsewhere (Ben-Tor 2004d: 29), the prominence of the crocodile god Sobek in the late Middle Kingdom probably generated his veneration by the rulers of Avaris (Ryholt 1997: 149, and n. 542), and thus by the Canaanite population in the eastern Delta and Palestine. The distribution of the design in the Palestinian series, and its absence at Jericho earlier than group IV, indicate a late MBIIB date, as suggested by Tufnell (1984: 133). This is supported by an example from Tell el-`Ajjul (Keel 1997: 283, no. 526) displaying v-shaped *humeral callosities* – a distinctive 18th Dynasty feature first attested on a royal-name scarab of King Apophis (above, §IIB 1).⁸³⁹ Examples of design class 9D display almost exclusively the hollowed out engraving technique.

§IVA 9d. Design class 9E – Lions

The number of examples depicting the lion as primary motif, which Tufnell presents from the three sites included in her study (1984: Pl. 40), indicates the great popularity of the lion in the late Palestinian series. As noted above (§IIIA 9), an example from Tell el-`Ajjul displaying early-series characteristics (Keel 1997: 389, no. 832), suggests that occasional depictions of the lion on Canaanite scarabs probably occurred already in the early phases of the MBIIB. Still, the lion is not attested in the early series or on other known examples displaying distinctive early-series characteristics, and it first occurs at Jericho in group III, most examples coming from groups IV-V (Tufnell 1984: 133-34). The late series yielded six examples from Jericho (Pl. 99: 35-40), nine from Tell el-Far`ah (S) (Pl. 100: 1-9), five from Lachish (Pl. 100: 10-14), three from Gezer (Pl. 100: 15-17), and thirty from Tell el-`Ajjul (Pl. 100: 18-36, Pl. 101: 1-11). The design is attested in linear as well as hollowed out engraving.

Although occurring on both early and late Middle Kingdom scarabs (albeit on a very small number of examples), representations of the lion on Middle Bronze Age Canaanite scarabs seem to have been inspired primarily from Syrian cylinder seals. As noted by Keel and Uehlinger (1998: 22), this is indicated in depictions of the lion striding (Pl. 100: 1-3, 14, 18, 25, 29, 36, Pl. 101: 2-4, 7), crouching on its hind legs (Pl. 100: 6-8, 10-12, 15, 24, 27, 33, 35, Pl. 101: 6, 8-9), attacking a horned animal (Pl. 100: 4, 9, 16, 26, 34), and depicted with a human figure (deity?) or a vulture on its back (Pl. 100: 6, 17, 28, Pl. 101: 10).⁸⁴⁰ The Levantine inspiration of the branch occasionally depicted with the lion (Pl. 100: 1, 28, 32, 36, Pl. 101: 2, 9), is indicated by its close association with the nude goddess (Keel 1995a: 164, §433).

Tufnell notes (1984: 134) that when depicted with other animal or human figures, the lion is always portrayed as victor and never as vanquished (Pl. 100: 4, 7, 9, 13, 20, 26, 34, Pl. 101: 1). Keel and Uehlinger argue for direct Egyptian influence on these victorious scenes when the lion is depicted striding over or attacking one or more human figures, or a crocodile (1989: 23-25). They also argue that depictions of the lion with cobras (Pl. 100: 10, 20, 27, 33, 35, Pl. 101: 2-3, 6-9), which are not attested on Syrian cylinder seals, reflect direct Egyptian influence. This mixture of Egyptian and Levantine iconographic traditions has been shown as a primary characteristic of Middle Bronze Age Canaanite scarabs depicting figurative motifs (Keel 1994: 212-225; 1995a: 193-229; below, §IVA 10). The interpretation of these mixed designs on Canaanite scarabs is, however, far from conclusive due to the absence of related written sources in Middle Bronze Age Palestine.

⁸³⁸ Egyptian scarabs of the Middle Kingdom display the crocodile as a hieroglyph on royal-name and private-name scarabs (E.g. Martin 1971: nos. 1380-1443; Tufnell 1984: Pl. 53-54: 3095, 3100-3108).

⁸³⁹ The features of the scarab argue for an early 18th Dynasty date as correctly noted by Keel (1997: 282).

⁸⁴⁰ For depictions of the vulture on Syrian cylinder seals see Teissier 1996: 93-95, 153-54.

§IVA 9e. Design class 9F – Heraldic beasts

Most examples categorized by Tufnell under this design class depict a human-headed or a falcon-headed sphinx (Tufnell 1984: Pl. 41). The few examples depicting a griffin, which are also categorized under this design class, display a different style and stand out for their fine detail of the work (Tufnell 1984: 134), which has been pointed out as indicating an earlier date (above, §IIIA 9). Both types of sphinx (human headed and falcon headed) are absent in the early Palestinian series (above, §IIIA 9), and they are less common than lions in the late series (Tufnell 1984: 143). Four examples were found at Jericho (Pl. 101: 12-15), four at Gezer (Pl. 101: 16-19), three at Megiddo (Pl. 101: 20-22), three at Lachish (Pl. 101: 23-25), and seventeen at Tell el-`Ajjul (Pl. 101: 26-38, Pl. 102: 1-4). The complete absence of the design at Tell el-Far`ah (S) is most probably due to accident of survival.

An examination of these scarabs shows a more or less equal distribution of human headed and falcon headed sphinxes; the fact that sites like Jericho and Lachish yielded respectively only falcon-headed and human-headed sphinxes is probably due to accident of survival. As already noted by Keel (1995a: 200, §550) all examples depicting human-headed sphinxes display linear engraving while all those depicting falcon-headed sphinxes display hollowed out engraving. This distinction, however, does not seem to have a chronological significance since falcon-headed sphinxes are attested already in group III at Jericho. The inspiration for the sphinxes on Canaanite scarabs probably came directly from Egypt, although from media other than scarabs as sphinxes are not attested on Egyptian scarabs of the first half of the second millennium BCE. Human-headed sphinxes occur on Syrian cylinder seals but they display a completely different stylistic profile, and falcon-headed sphinxes are completely absent (Teissier 1996: 144-49). Keel notes a rare type of human-headed sphinx with wings that is depicted on isolated unprovenanced scarabs (Keel 1995a: 199, §548). Although no excavated examples are known, the stylistic profile of these winged sphinxes and the motifs associated with them leave no doubt as regards their Middle Bronze Age Canaanite origin.

Summing up design class 9 in the late Palestinian series it can be shown that all examples displaying the design show local Canaanite developments even when depicting Egyptianized motifs like the crocodile and cobras, or designs that are attested on Egyptian scarabs of the Middle Kingdom like the horned animal and the lion. The images of protective demons depicted on Middle Kingdom scarabs (the standing lion and Taweret) are not attested on Canaanite scarabs, and the isolated examples found in Palestine are almost exclusively late Middle Kingdom heirlooms.⁸⁴¹ The almost complete absence of these images on Canaanite scarabs is probably due to their association with Egyptian religious beliefs that were not relevant in Palestine.

Keel's revision of Tufnell's subclasses (1995a: 189-203, §515-559) includes also animals like the uraeus (§529), scarab (§516A), falcon (§556-557), and vulture (§558-559), which are better categorized as hieroglyphs (see design class 3, above). He also proposed some modification of Tufnell's subclasses based on his interpretation of various scenes involving the crocodile (§531-535), the lion (§536-542) and the sphinx (§543-550). These are not discussed here as their significance lies in religious interpretations that are not dealt with in this study, as they have no chronological or geographical significance; all excavated examples from Palestine come from the late series and they are all Canaanite productions.

§IVA 10. Design class 10 – Human and mythical figures

Tufnell's subclasses of design class 10 are based primarily on examples found in the late Palestinian series (1984: 134-38, Pls. 42-48). As noted above (§IIIA 10) Tufnell's subdivision of design class 10 considers the posture, number, and form of the figures, as well as the emblems held in their hands. Keel proposes some revisions to Tufnell's subclasses in view of his suggested religious and cultural interpretations (1995a: 204-29). His most important observation concerns the inspiration for the human figures depicted on Canaanite scarabs from both Egyptian and Levantine cultural spheres (Keel 1995a: 204-209, §561-572). Keel demonstrates the mixture of Egyptian and Levantine iconographic traditions on Canaanite scarabs, which as in the case of the early series, is attested in the late series especially with design class 10. The discussion below follows Tufnell's subclasses for the sake of convenience, and refers to Keel's revisions when they have chronological or geographical implications. The scarabs discussed below do not include the isolated examples displaying early-series characteristics, which were dealt with in the previous chapter.

§IVA 10a. Design class 10A – Standing figures

Tufnell divides this subclass into **10A1** – human headed figures and **10A2** – mythical headed figures (mainly falcon heads). These are further divided according to six descriptive categories (applied also to other subclasses of design

⁸⁴¹ The only possible exception is an unprovenanced scarab presented by Keel (2004: Fig. 30) showing the goddess Taweret with a crocodile behind her and an *ḥnḥ* in front of her.

class 10): **a** – holding palm, **b** – holding flower, **c** – holding cobra, **d** – wearing toga, **e** – holding weapons, **f** – empty handed (Tufnell 1984: 134-35). Tufnell does not present any example displaying category **e** in association with design class 10A. Keel, however, refers to a handful of examples depicting a standing human figure wearing a high crown and holding a shield and occasionally also a mace or a sword, which he identifies with the Canaanite god Reshef (1995a: 209-10, §573).⁸⁴² None of these examples come from Middle Bronze Age contexts,⁸⁴³ yet, as correctly noted by Keel they display distinctive characteristics of Middle Bronze Age Canaanite scarabs.

Subclass 10A1 depicting human headed figures is attested in the late series on nine examples from Jericho (**Pl. 102: 5-12**),⁸⁴⁴ eleven from Tell el-Far`ah (S) (**Pl. 102: 13-23**), five from Gezer (**Pl. 102: 24-28**), eight from Lachish (**Pl. 102: 29-36**),⁸⁴⁵ and thirty-seven from Tell el-`Ajjul (**Pl. 102: 37-50, Pl. 103: 1-23**). Subclass 10A2 depicting mythical headed figures is attested on one example from Jericho (**Pl. 103: 24**), three from Tell el-Far`ah (S) (**Pl. 103: 25-27**), four from Lachish (**Pl. 103: 28-31**), and nine from Tell el-`Ajjul (**Pl. 103: 32-39**). These examples indicate a far greater popularity for human-headed figures in all relevant sites. The Green jasper group also displays a small number of scarabs depicting standing human figures (Keel 1989: 219-21), either holding a flower or raising one arm in a greeting posture (Keel 1989: 219-22, nos. 14, 15, and 16-20). Keel considers separately a small group of mythical figures with crocodile heads, which are depicted in identical scenes (Keel 1995a: 216-17, §590-591). The excavated examples include a scarab from Jericho depicting the figure next to a crocodile and thus categorized above under design class 9D (**Pl. 99: 8**),⁸⁴⁶ and a scarab from Megiddo depicting it next to a falcon-headed figure and thus categorized under design class 10B (**Pl. 103: 43**).

As demonstrated above (§IIIA 10a) human headed figures occur in Palestine already in the early series, while mythical headed figures are attested only in the late series (Tufnell 1984: Pl. 44). Yet, the number and distribution of examples displaying subclass 10A1 in the late series indicate not only the continuation of the design throughout the Middle Bronze Age, but also its increasing popularity in the later phases of the MBIIB. Most human headed figures display linear engraving, while falcon headed figures are almost exclusively hollowed out.⁸⁴⁷ Considering the absence of hollowed out figures in the early series this type of engraving suggests a later trend, nevertheless, both linear and hollowed out figures are attested in group III at Jericho and both continue throughout the late series (Tufnell 1984: 135-37). Therefore, distinctions such as human headed vs. mythical headed figures or linear vs. hollowed out figures cannot be used as chronological indicators within the late series.

This is also true for the emblems held in the figures' hands. As demonstrated above (§IIIA 10a), the flower and the branch are held in the hand of human headed figures already in the early series, while the cobra held by such figures is attested only in the late series, showing a later trend (Tufnell 1984: 135). Yet, as in the case of the human headed figures and linear engraving, the branch and the flower in the hands of standing figures continue throughout the late series. Moreover, depictions of human headed figures holding flowers gain in popularity in the late series (Tufnell 1984: Pl. 42). Keel pointed out that the *w3s* scepter held in the hands of some falcon headed figures, which is turned inwards instead of the customary Egyptian depiction outwards, developed from the flowers held in the hands of similar figures (Keel 1995a: 215-16, §587). The mixture of Egyptian and Levantine iconographic traditions in the scenes depicted on these scarabs was convincingly demonstrated by Keel (1995a: 204-208, 215-18), strongly arguing for their Canaanite origin.

Human figures wearing a toga-like garment also come almost exclusively from the late series (Tufnell 1984: 137-38, Pl. 43; Schroer 1985: 76-82), though a single example was found in early MBIIB context at Megiddo (above, §IIIA 10b, **Pl. 63: 16**). The Levantine origin of these figures and the inspiration for their depiction on Middle Bronze Age scarabs from Syrian cylinder seals were convincingly argued by Schroer (1985) and are now generally accepted (Ward and Dever 1994: 120; Keel 1995a: 206-208, §568-570). Schroer and Keel also note, however, the apparent Egyptian influence attested in the signs and symbols associated with the toga-wearing figures (**Pl. 102: 10, 13, 43, Pl. 103: 7, 19-21**).

It is interesting to note here the distribution of human vs. mythical headed figures in the Second Intermediate Period series in Egypt and Nubia, where in contrast to the Palestinian series mythical headed figures clearly outnumber human figures (above, §IIA 10a). As a chronological distinction does not seem to be the reason for this distribution, it may reflect a preference for mythical headed figures in Egypt. Preference for particular designs in the Egyptian/Nubian series is supported by the

⁸⁴² Based on a study by Cornelius (1994: 96-98). He also presents convincing evidence (1995a: 221, §601) for the erotic connotation of the only scene attributed by Tufnell to category **e** (Tufnell 1984: Pl. 45: 2789).

⁸⁴³ Most examples have no provenance, and one example from Beth Shean comes from a Late Bronze context (Rowe 1936, no. 298).

⁸⁴⁴ The last one belongs to the green jasper group (Keel 1989: 211-42).

⁸⁴⁵ The last one belongs to the green jasper group (Keel 1989: 211-42).

⁸⁴⁶ An additional example depicting a crocodile-headed figure next to a crocodile from Tell el-`Ajjul displays features of the early 18th Dynasty (Keel 1997: 282-833, no. 526) and is therefore not presented here.

⁸⁴⁷ This is clearly seen in the photographs presented respectively by Tufnell and Keel for the examples from Lachish and Tell el-`Ajjul. See also Tufnell 1984: Pls. 42-44.

complete absence of human figures wearing the toga-like garment, and the almost complete absence of the nude goddess (below design class 10D1).

Keel notes a small group of Middle Bronze Age scarabs depicting the image of the god Ptah (Keel 1995a: 213-14, §581; 2002: 200-202, Figs. 23-31), one of them from Tell el-`Ajjul (**Pl. 103: 40**). The Canaanite origin of these scarabs is indicated primarily by the inaccurate depiction of the god's customary attire and attributes. It is also indicated by depictions of his image in association with motifs that customarily occur on Middle Bronze Age Canaanite scarabs like a worshipper, kneeling falcon headed figures, or cobras (Keel 2002: 200-202, Figs. 23-31). The source of inspiration for these Ptah images on Canaanite scarabs is not clear; they are not attested on pre-New Kingdom Egyptian design scarabs,⁸⁴⁸ or on Syrian cylinder seals.

§IVA 10b. Design class 10B – Two or more figures, standing or kneeling

Tufnell categorized under this design class all examples depicting two or more figures – human or mythical headed, standing or kneeling, and divided them into subclasses according to the descriptive categories **a-f** (1984: 135, Pl. 45). Keel modified Tufnell's subclasses by dividing the design according to the number of figures, their form, and their association with each other or with other symbols (1995a: 218-226, §595-601, §605-612).⁸⁴⁹ Keel's main contribution lies in his conclusive evidence for Levantine inspiration on many of the scenes involving two or more figures, and for the mixture of Levantine and Egyptian iconographic traditions on these scarabs, which argue for their Canaanite origin. As his modifications of Tufnell's typology have no chronological implications the discussion below follows Tufnell's subclasses for the sake of convenience.

As noted above (§IIIA 10b) isolated examples depicting two human figures occur already in the early Palestinian series, but most examples come from the late series, which yielded one example from Jericho (**Pl. 103: 41**), two from Megiddo (**Pl. 103: 42-43**), five from Tell el-Far`ah (S) (**Pl. 103: 44-47, Pl. 104: 1**), one from Gezer (**Pl. 104: 2**), and fourteen from Tell el-`Ajjul (**Pl. 104: 3-16**). The total number of examples, and the fact that no examples were found at Lachish and only one was found at Jericho suggest that the design was not as popular as those depicting a single figure (10A and 10C). As in the case of design class 10A, design class 10B displays more human figures than mythical headed ones, and the former are usually depicted in linear engraving while the latter are exclusively hollowed out (Tufnell 1984: Pl. 45). Most examples displaying design class 10B depict two figures of the same type, namely two human headed or mythical headed figures, but three examples from Tell el-`Ajjul depict both types, in which case the figures are hollowed out (**Pl. 104: 3, 6, 15**).⁸⁵⁰

§IVA 10c. Design class 10C – Kneeling figures

As in the case of design class 10A, Tufnell divides this design class into **10C1** – human headed figures and **10C2** – mythical headed figures (mainly falcon heads), and applies to them the descriptive categories **a-f** (Tufnell 1984: Pl. 46-47). Like standing human figures, kneeling human figures are first attested in the early Palestinian series while kneeling mythical headed figures come exclusively from the late series. Subclass 10C1 depicting human figures is attested in the late series on three examples from Jericho (**Pl. 104: 17-19**), one from Tell el-Far`ah (S) (**Pl. 104: 20**), one from Gezer (**Pl. 104: 21**), three from Lachish (**Pl. 104: 22-24**), and ten from Tell el-`Ajjul (**Pl. 104: 25-34**). Subclass 10C2 depicting mythical headed figures is attested only on three examples from Tell el-Far`ah (S) (**Pl. 104: 35-37**), and ten from Tell el-`Ajjul (**Pl. 104: 38-40, Pl. 105: 1-7**). No examples were found at Lachish, and the two examples from Jericho depicting kneeling falcon-headed figures were categorized above under class 9C (**Pl. 97: 20, Pl. 98: 24**).

The examples listed above include, as in the case of design classes 10A and 10B, a larger number of human figures. This number is, however, somehow misleading, as mythical headed kneeling figures are often depicted flanked by cobras, in which case they were categorized under design class 9C (**Pl. 97: 20, 24, 26-27, 30-31, Pl. 98: 24, 26, 28, 34**). Taking into consideration the latter examples, the number of human and mythical headed kneeling figures is about the same. The distribution of linear contours for most human figures and hollowed out images for most mythical headed figures is attested also with design class 10C. As in the case of design class 10A distinctions such as human headed vs. mythical headed figures or linear vs. hollowed out figures cannot be used as chronological indicators within the late series. For the Canaanite origin of design class 10C see discussion of the design in the early Palestinian series (above, §IIIA 10c).

⁸⁴⁸ The only known pre New Kingdom Egyptian example is a late Middle Kingdom private-name scarab from the collection of the Israel Museum depicting the god's image in the customary Egyptian form (Ben-Tor 1988: 39, no. 11 = **Pl. 19: 35**).

⁸⁴⁹ The scenes discussed in §602-604 were identified above (§IA 10) as Egyptian late Middle Kingdom and Second Intermediate Period.

⁸⁵⁰ The photograph of the scarab presented in **Pl. 104: 12** shows two human figures (Keel 1997: 459, no. 1042), and not a human figure and falcon headed figure as presented by Mackay and Murray (1952: Pl. 9: 14 = Tufnell 1984: Pl. 45: 2783).

§IVA 10d. Design class 10D – Goddess

As noted above (§IIIA 10d) both subclasses of this design: 10D1 – standing nude goddess, and 10D2 – “Hathor” symbol occur on isolated examples in the early Palestinian series but most examples come from the late series (Tufnell 1984: 138; Keel 1995a: 210-11, §574).

§IVA 10d1. Design class 10D1 – Goddess standing, nude

The comprehensive study conducted by Schroer (1989) presents conclusive evidence for the Levantine origin of the nude female figure depicted in frontal view on Middle Bronze Age scarabs and for her identification with the nude goddess depicted on Syrian cylinder seals. Stressing the Levantine inspiration on the iconography of these images, Keel notes also Egyptian influence on the hairstyle of some examples (**Pl. 105: 8-15**) and the posture depicting the goddess with her arms hanging down alongside the body (Keel 1995a: 211, §575; Keel and Uehlinger 1998: 26). Egyptian influence should also be considered for the large ears depicted on a significant number of examples (**Pl. 105: 17-28**), which occur also with the Canaanite version of the Hathor symbol (design class 10D2 below), and most probably simulate the Hathor cow ears.⁸⁵¹ As already noted above, scarabs bearing design class 10D1 are extremely rare in Egypt, where only three examples were found, all of them in the eastern Delta (above, §IIA 10d). The almost complete absence in Egypt of scarabs depicting this image does not seem to be random or the result of accident of survival, but more likely suggests that this distinctive Levantine motif was not relevant in Egypt, just like the Levantine ruler wearing the toga-like garment, which is completely absent on scarabs outside Palestine (above, §IVA 10a).

Design class 10D1 occurs in the late Palestinian series on two examples from Jericho (**Pl. 105: 9, 20**),⁸⁵² two from Gezer (**Pl. 105: 11, 16**), four from Tell el-Far`ah (S) (**Pl. 105: 12, 21-22, 27**), three from Lachish (**Pl. 105: 15, 18-19**), one from Aphek (**Pl. 105: 14**), and two from Tell el-`Ajjul (**Pl. 105: 8, 23**). Of the forty-four examples presented by Schroer (1989: 97-100, 200-201), twenty-two come from excavations or surface finds in Palestine (Keel and Uehlinger 1998: 26). All known examples display a linear engraving.

§IVA 10d2. Design class 10D2 – “Hathor” symbol

As demonstrated above (§IIIA 10d2), the variations of the Hathor symbol depicted on Middle Bronze Age scarabs provide one of the clearest examples for a Canaanite adaptation of an Egyptian motif and its assimilation into the Levantine cultural sphere. This is manifested in the combination of the symbol with the nude goddess (Schroer 1989: 97-99, nos. 5, 8, 19, 20-34), and in the association of both images with floral motifs (Schroer 1989: 197; Keel and Uehlinger 1998: 28). Unlike the nude goddess, examples depicting the Canaanite version of the Hathor symbol are attested also in Egypt, albeit in small numbers (above, §IIA 10d). Moreover, as demonstrated above, this particular form of the Hathor symbol originated in the early workshop at Tell el-Dab`a (**Pl. 31: 11**), where the Canaanite simulation of the Egyptian symbol is first attested. Most excavated examples depicting the design, however, come from the late Palestinian series (Tufnell 1984: 138), which yielded two examples from Jericho (**Pl. 105: 29-30**),⁸⁵³ one from Tell el-Far`ah (S) (**Pl. 105: 31**), two from Lachish (**Pl. 105: 32-33**),⁸⁵⁴ one from Megiddo (**Pl. 105: 34**), and nineteen from Tell el-`Ajjul (**Pl. 105: 35-46, Pl. 106: 1-7**).⁸⁵⁵

Keel notes the larger number and greater distribution of examples depicting the Canaanite version of the Hathor symbol compared with the nude goddess (1995a: 212-13, §579). The Egyptian origin of this motif probably accounts for its distribution in Egypt during the Second Intermediate Period (above, §IIA 10d). Like design class 10D1 all known examples depicting design class 10D2 display linear engraving. Most examples depict the symbol as a central motif flanked by geometric patterns or plants (**Pl. 105: 30-31, 33-39, 41-45, Pl. 106: 6-7**), but it is also attested with hieroglyphs (**Pl. 105: 29, Pl. 106: 8**), misrendered signs (**Pl. 105: 38, 40, Pl. 106: 9-10**), design class 3C (**Pl. 106: 11-12**), a falcon (**Pl. 105: 32, Pl. 106: 10**), a horned animal (**Pl. 106: 12**), or two kneeling human figures (**Pl. 106: 4, 13**).

The occurrence of cowroids displaying the design (**Pl. 105: 34, 38, Pl. 106: 7**), including the type associated with King Apophis (above), suggests that these design amulets were imitated in Palestine in the late MBIIB. An

⁸⁵¹ Keel, following Schroer suggests that the large ears express the willingness of the goddess to hear the worshippers rather than imitate the cow ears of the Egyptian Hathor symbol (Keel and Uehlinger 1998: 28).

⁸⁵² A third example from the site (Kirkbride 1965: Fig. 296: 14 = Schroer 1989: 99, no. 41) displays features suggesting an early MBIIB date (above, §IIIA 10d1, **Pl. 63: 28**).

⁸⁵³ The late groups at the site yielded also two example displaying early MBIIB characteristics (Kirkbride 1965: Fig. 290: 18, 293: 14 = **Pl. 63: 30-31**). Another example from the site is published by Schroer (1989: 142, no. 89) without measurements.

⁸⁵⁴ A highly unusual example comes from a Late Bronze Age context at the site (Tufnell 1958: Pl. 38: 250).

⁸⁵⁵ Two additional examples from the site presented by Tufnell (1984: Pl. 48: 2854, 2864) are of later periods (Keel 1997: 263-373, nos. 473, 786).

Egyptian origin for these examples is unlikely as there is no evidence for the occurrence of the Canaanite version of the Hathor symbol on scarabs made in Egypt except for the early workshop at Tell el-Dab`a (above, §IIA 10d).

§IVA 10e. Design class 10E – Human figures, enthroned

Enthroned human figures are usually identified as rulers based on examples depicting the figures wearing the toga like garment (**Pl. 106: 14-15**) – the distinctive item of clothing of Levantine rulers in the Middle Bronze Age (Schroer 1985; Keel 1995a: 219-20, 229, §598-599, §622; Keel and Uehlinger 1998: 43-45). Schroer notes also examples depicting enthroned figures wearing Egyptian style garments (1985: 88, Figs. 54-55; **Pl. 106: 16, 18**) and points out the mixture of Egyptian and Levantine iconographic traditions on these scarabs. As noted above (§IIIA 10e) Middle Bronze Age scarabs depicting enthroned human figures constitute a small group, and excavated examples come almost exclusively from the late Palestinian series (Keel 1995a: 219-229, §598, §622).⁸⁵⁶ These include one example from Lachish (**Pl. 106: 14**), one from Tell el-Far`ah (S) (**Pl. 106: 15**), one from Gezer (**Pl. 106: 16**), one from Tell el-`Ajjul (**Pl. 106: 17**),⁸⁵⁷ and one from a Late Bronze Age context at Tel Michal (**Pl. 106: 18**). Whether dressed in Levantine or Egyptian attire, the enthroned figures are depicted either alone or with another figure, the latter portrayed in a posture of veneration (**Pl. 106: 15, 17**).⁸⁵⁸ The identification of the enthroned figures as rulers is supported by the complete absence of divine attributes.

Summing up design class 10 in the late series, the Canaanite origin of Middle Bronze Age scarabs depicting human and mythical figures is demonstrated by the evidence presented by Schroer and Keel (above), and is supported by the number of examples in Palestine compared with Egypt. The mixture of Egyptian and Levantine iconographic traditions attested on these scarabs indicates their Canaanite origin. The non-Egyptian origin of these scarabs makes it difficult to identify the figures categorized here under design class 10 or to interpret the scenes in which they appear, due to lack of relevant written sources. This is true even in clear cases of simulation of Egyptian prototypes like the standing human figures inspired by images on late Middle Kingdom private-name scarabs (Keel 1995a: 206, §566), or figures wearing the red crown of Lower Egypt (Keel 1995a: 208: §570a).

The apparent Egyptian influence on the figures categorized here under design class 10 attests to the adaptation of Egyptian iconography but it does not necessarily imply the adaptation of Egyptian religious beliefs. The distinct Levantine inspired scenes and gestures, as well as the alternating of human and mythical figures in identical scenes suggest adaptation of Egyptian form and its assimilation into Canaanite culture rather than the adaptation of Egyptian religious beliefs. This is supported by the complete absence of particular Egyptian images or scenes occurring on late Middle Kingdom scarabs, such as the standing lion, Taweret, Heh, Hapi-like fecundity figures, or hippopotamus hunting. The latter represent distinguishing Egyptian religious beliefs and were therefore not likely to be adopted in Palestine.

The Canaanite simulation of the Hathor symbol and its association with the nude goddess represent local adaptation of particular iconography associated with Hathor, and its assimilation into the Canaanite cultural sphere. It does not indicate, however, identification of the nude goddess, whose identity remains unclear, with Hathor. Considering the lack of evidence relating to Middle Bronze Age Canaanite religious beliefs we generally cannot establish the reason for the preference of particular Egyptian motifs nor can we interpret their meaning in association with the local cultural sphere.

The likely identification of human figures wearing the toga-like garment with local rulers was convincingly argued by Schroer (1985) and Keel (1995: 207-8, §569-570), however, identification of other figures, human as well as mythical remains tentative, even that of the image simulating Ptah, for lack of conclusive evidence.

⁸⁵⁶ The only exception comes from Pella in Jordan (Richards 1992: Pl. 3: 11 = Keel 1995a: 220, Fig. 474).

⁸⁵⁷ Another example from the site displaying early-series characteristics was discussed above (§IIIA 10e, **Pl. 63: 32**).

⁸⁵⁸ See also an example from Pella (Richards 1992: Pl. 3: 11 = Keel 1995a: 220, Fig. 474).

§IVB. Typology of Features

Scarabs of the late Palestinian series generally display schematic features and often show lesser quality of workmanship. The features presented by Tufnell for design classes 3E4, 6C, 9, and 10, which come almost exclusively from the late series display an overwhelming majority of plain backs (Tufnell 1984: Pls. 20, 26-27, 36-48). This is supported by the distinct majority of plain schematic backs in the large corpus of Middle Bronze Age scarabs from Tell el-ʿAjjul presented by Keel (1997: 107-525, *passim*), which provides a suitable database for examining typical features of scarabs of the late series (**Pls. 106-107**). The photographs available for most examples show, in addition to a distinct majority of plain schematic backs, that D type heads are by far the most common, frequently displaying types D7, D8, and D9 (**Pl. 106: 20, 22-23, 26, Pl. 107: 1-3, 5, 11, 13-16**), which are not attested in the early series. Occasional A and B heads are also attested (**Pl. 106: 21, 25, Pl. 107: 8**). The same distribution of head types is presented in Tufnell's plates for design classes 3E4, 6C, 9, and 10 that for the most part represent the late series (Tufnell 1984: Pls. 20, 26-27, 36-48). The dominating side types are e11 (**Pl. 106: 22-23, 25-26, Pl. 107: 1, 3, 6, 9, 13-15**) and d5 (**Pl. 106: 19, 21, 27, Pl. 107: 2, 5, 11**) with occasional occurrences of e9 (**Pl. 107: 7**), e10 (**Pl. 106: 20, Pl. 107: 10**), d6 (**Pl. 106: 24, Pl. 107: 4, 8**) and d14/e6 (**Pl. 107: 12, 16**).

The dominating features of the late Palestinian series were also noted as dominating the Second Intermediate Period royal-name series (above, §IIB 1), including branches decorating the back (**Pl. 106: 24, Pl. 107: 7-8, 13**), which is intriguing considering the most likely production of the latter at Tell el-Dabʿa. The same stylistic profile occurs also on Second Intermediate Period Egyptian design scarabs (**Pls. 41-42**). The latter, unlike the royal-name series, include also some examples displaying side e6/d14, a domed plain back, and head type A4 or A6 (**Pl. 42: 4-8**), which are described by Mlinar as type V,⁸⁵⁹ and occur also on a few late MBIIB Canaanite scarabs.⁸⁶⁰ The almost identical stylistic profile of Second Intermediate Period Egyptian scarabs and late MBIIB Canaanite scarabs suggests strong influence of Canaanite scarabs on the scarab production in the eastern Delta during the 15th Dynasty. This is also indicated in the adaptation of Canaanite designs such as 3A4, 3C, and 3E1 on Second Intermediate Period Egyptian scarabs (Ben-Tor 2004c: 34-38; above, §IIA 3a4, 3c, 3e). The evidence presented by Mlinar for the stylistic profile of scarabs found at Tell el-Dabʿa, indicates an early workshop at the site dating from the late Middle Kingdom and the early Second Intermediate Period (Mlinar 2004: 133, types II and III; above, § IIb 5c). The types assigned to the 15th Dynasty (IV, V, VI), however, describe mainly Canaanite imports, and very few examples that can be assigned an Egyptian origin (Mlinar 2004: Figs. 13a-13b: 2, 4, 7, 17, Fig. 14: 2). The small number of scarabs that can be assigned a Second Intermediate Period Egyptian origin, even at Tell el-Dabʿa, argues for a limited production of scarabs in Egypt during this period. These examples include mainly royal-name and private-name scarabs and a small number of design scarabs that often display clear Canaanite inspiration in both designs and features.

A rare back type attested exclusively on Middle Bronze Age Canaanite scarabs displays three spaces for inlays that did not survive and were meant to highlight the scarab's *pronotum* and *elytra* (Fischer and Keel 1995: Figs. 4a-ag; **Pl. 107: 17-18**). It is also interesting to note a number of examples depicting Middle Bronze Age Canaanite designs that display v-shaped *humeral callosities*.⁸⁶¹ These examples attest to the adaptation of this distinctive New Kingdom feature on a few Middle Bronze Age Canaanite scarabs dating sometime between the final phase of the Second Intermediate Period and the early 18th Dynasty in Egypt.⁸⁶²

⁸⁵⁹ Mlinar 2004: Fig. 12, which include two Canaanite scarabs (nos. 3, 5), possible Egyptian Second Intermediate Period scarabs (nos. 2, 4), and a possible late Middle Kingdom scarab (no. 1). Mlinar describes the heads as type D, but this type of head can also be described as A4 or A6 (See Tufnell 1984: Fig. 12).

⁸⁶⁰ E.g. Keel 1997: 125-475, nos. 63, 92, 825, 911, from Tell el-ʿAjjul; Keel 2002: Figs. 5, 7-9.

⁸⁶¹ See e.g. Ben-Tor 1989: 70, no. 45; Keel 1997: 195-329, nos. 273, 526, 662.

⁸⁶² Tell el-ʿAjjul yielded also two late Second Intermediate Period Egyptian examples with v-shaped *humeral callosities*, one displaying a variation of design class 3C (Keel 1997: 151, no. 133; above, §IVA 3c), and one displaying a double scarab back (Keel 1997: 525, no. 1241; above, §IVA 3b1).

Conclusions

The typological development of Egyptian and Canaanite scarabs presented in this study helps us to answer many of the historical and cultural questions raised about the first half of the second millennium BCE in Egypt and the Levant.

The principal methodological difference between this study and previous scarab studies is its treatment of the Egyptian and Palestinian excavated series as two separate groups. This geographical classification of the scarab corpus, which previously had been dealt with as one entity, makes it possible to differentiate between Egyptian and Canaanite scarabs of the first half of the second millennium BCE, and to establish stylistic and chronological typologies for each group. Most important, it made the large scarab collections from both regions usable for the primary aim of this study, namely to characterize the nature of the relations between Egypt and Palestine during the Second Intermediate Period. This issue is still controversial, reflecting the ambiguous sources available for the historical reconstruction of the first half of the second millennium BCE in both regions. The political situation in Egypt during this period, which includes the Middle Kingdom and the Second Intermediate Period is still partly obscure (Von Beckerath 1964; Quirke 1991; 2004; Bietak 1994; 1996; O'Connor 1997; Ryholt 1997; Schneider 1998; 2003; J. Allen in Ben-Tor et al 1999; Bourriau 1997; 2000). The political situation in Palestine during this period is even more obscure, due to the scarcity of contemporary textual sources in this region, and to the dependence of the absolute chronology of the Canaanite Middle Bronze Age on the Egyptian chronology (Weinstein 1975; 1992; 1996; Ward 1987; Bietak 1991; 1997; Dever 1992: 1-14; 1997; Ward and Dever 1994; Beck and Zevulun 1996; Ben-Tor 1997; 2003; 2004). Before addressing this issue a summary of the conclusions based on the above scarab typologies should be presented, as they form the basis for the conclusions pertaining to the principal issues under discussion.

Egyptian scarabs of the late Middle Kingdom

Analysis of the Middle Kingdom excavated scarab series from Egypt and Lower Nubia makes it possible to define for the first time Egyptian scarabs of the Middle Kingdom, which were frequently confused with early Canaanite scarabs. Examination of these series also makes it possible to distinguish between early and late Middle Kingdom scarabs, to establish the beginning of mass production of scarabs in Egypt in the late Middle Kingdom (ca. 1850 BCE), and to determine the historical developments that generated this process (above, introduction to chapter I). The archaeological contexts of the late Middle Kingdom series support the continuation of the Middle Kingdom in Egypt well into the 13th Dynasty (above, Table 1). The stylistic homogeneity of the scarabs and seal impressions comprising these series, and the sealing system attested throughout Egypt and Lower Nubia, reflect the centralized rule of a politically unified and culturally homogeneous Egypt. The only change reflected in scarabs during this period is attested at Tell el-Dab`a, where locally produced scarabs occur in late Middle Kingdom occupation levels. These scarabs display particular characteristics that argue for their production by the early Canaanite settlers at that site (above, §IIb 5c).

Egyptian scarabs of the Second Intermediate Period

In complete contrast to the late Middle Kingdom series, the Second Intermediate Period excavated series from Egypt and Nubia display a stylistic diversity reflecting the cultural diversity of a divided land (above, §IIb 1-5). There is no evidence for the continuation of the centralized sealing system of the Middle Kingdom, or for the continuing production of Middle Kingdom type scarabs, while there is evidence for large-scale importation of Canaanite scarabs from Palestine, especially in the eastern Delta (above, §IIb 1-5). The archaeological deposits of the Second Intermediate Period series in Egypt and Nubia consist mainly of reused and heavily plundered cemeteries. Nevertheless, the evidence suffices to suggest that Second Intermediate Period scarab production in Egypt took place almost exclusively in the eastern Delta, most probably at Tell el-Dab`a (above, §IIB 4).

The early Tell el-Dab`a workshop dates from the late Middle Kingdom and the beginning of the Second Intermediate Period, and its products are rarely found outside Tell el-Dab`a; most examples display imitations of late Middle Kingdom prototypes but inspiration from the Levantine cultural sphere is occasionally attested (above, §IIb 5c; §IIA 10a; §IIA 10d). The late Tell el-Dab`a workshop dates from the later phases of the Second Intermediate Period; scarabs found in early Second Intermediate Period occupation levels at the site consist mostly of Canaanite imports (above, §IIb 5c). In contrast to the early locally produced scarabs, which are rarely found outside Tell el-Dab`a, products of the late Tell el-Dab`a workshop are found from the eastern Delta in the north to Kerma in the south (above, §IIb 5c), and examples are also attested in Palestine, most of them at Tell el-`Ajjul (above, §IVA 3a4; §IVA 3b1b; §IVA 3b5). The late Middle Kingdom mass production of scarabs is reduced in the Second Intermediate Period to the production of royal-name and private-name scarabs and a small number of design scarabs, most of

them displaying a strong Canaanite affinity and inspiration from scarabs made in Palestine (above, §IIA 3a4; §IIA 3c; §IIA 3e; IIB 1). The archaeological contexts and stylistic profile of these royal-name and private-name scarabs strongly argue against dating any of them to the time span generally assigned to the 14th Dynasty (above, §IIB 1; §IIB 1a; §IIB 3). There is no evidence to suggest Second Intermediate Period scarab production at Thebes before the final phase of the period (above, §IIB 2; §IIB 4).

Canaanite scarabs of the early Palestinian series

The evidence for the use of scarabs by non-Egyptian populations in the second millennium BCE in Nubia and the Levant shows that this practice was inspired by close cultural interaction with Egyptians (above, §IIB 4; introduction to chapter III). Yet, unlike in the case of Nubia, where no local scarab production is attested, the nature of the relations between Egyptians and Canaanites in the first half of the second millennium BCE triggered the Canaanite production of scarabs, first at Tell el-Dab`a and later in Palestine. The archaeological contexts of the scarabs comprising the early Palestinian excavated series are now largely assigned to the early MBIIB, the phase coinciding with the occupation levels at Tell el-Dab`a attributed to the period immediately after the political takeover of the site by the Canaanite settlers,⁸⁶³ thus arguing for the post-Middle Kingdom date of these scarabs (Ben-Tor 2003; 2004a; above, introduction to chapter III). This is supported by the scarabs' stylistic profile, which reflects imitation of late Middle Kingdom prototypes and argues for the local Canaanite production of the bulk of the material (above, §IIIA; §IIB). Egyptian Middle Kingdom imports are found in the early Palestinian series but they constitute a small minority in this group (Ben-Tor 1994; 1997: 185-87; Keel 2004: 75). Moreover, they are almost always heirlooms in the contexts in which they are found (above, introduction to chapter III).

The archaeological deposits of the early Palestinian excavated series consist primarily of early MBIIB cemeteries, indicating the customary use of these scarabs as funerary amulets in Canaanite tombs.⁸⁶⁴ Scarabs displaying the stylistic profile of the early Palestinian series are almost completely absent in Egypt, including the eastern Delta (above, introduction to chapter III). Like the scarabs of the early workshop at Tell el-Dab`a, these scarabs imitate late Middle Kingdom prototypes and occasionally show Levantine inspiration, yet their stylistic profile differs from that of the early Tell el-Dab`a scarabs (see Pls. 30-31, 64-73). The relatively small number of scarabs comprising the early Palestinian series may not reflect the actual popularity and distribution of locally produced scarabs during this period, considering the number of unprovenanced examples seen on the market (above, introduction to chapter III). However, even taking the latter into consideration, the number of scarabs representing the early series in Palestine is much smaller than that of the late series.

Canaanite scarabs of the late Palestinian series

The late Palestinian excavated series consist of a much larger corpus compared with the early series, reflecting a considerable increase in the production of scarabs in Palestine during the later phases of the Middle Bronze Age; most MBIIB sites yielded scarabs (above, introduction to chapter IV). As in the case of the early Palestinian series, the stylistic profile of these scarabs reflects the Canaanite origin of the bulk of the material. Yet, unlike scarabs of the early series, which are inspired mainly from late Middle Kingdom prototypes, scarabs of the late series display a mixture of designs equally inspired from the cultural spheres of Egypt and the Levant (above, introduction to chapter IV, §IVA 9; §IVA 10). Also unlike scarabs of the early series, scarabs displaying the stylistic profile of the late series are attested throughout the Nile valley from the eastern Delta in the north to Kerma in the south (above, §IIB 1-IIB 5). The initial production of scarab types dominating the late series in Palestine is assigned to the period coinciding with the rise of the 15th Dynasty (the Hyksos) at Tell el-Dab`a (above, §IIB 1; introduction to chapter IV).

The designs attested on Canaanite scarabs found in Egypt and Nubia show a preference for particular motifs, which differs from that attested in Palestine (above, §IIA 10; §IVA 10). A preference for particular motifs is also attested in the case of Egyptian Middle Kingdom motifs adopted on Canaanite scarabs; while some are imitated on locally produced scarabs and even assimilated into scenes inspired from Syrian glyptic art (above, §IVA 10), others are completely absent (above, §IA 10). Scarabs of the late Palestinian series, like those of the early series, were found primarily in Canaanite tombs, but examples were also found in habitation contexts (Tufnell 1984: 4-23). Seal impressions of scarabs occur on locally produced vessels of this period mainly on jar handles; most scarabs used for these impressions are locally made (Keel 1995a: 119-20), but occasionally late Middle Kingdom heirlooms are attested (Ben-Tor 1994; 2005). In contrast to Middle Kingdom Egypt, there is no evidence to suggest that scarabs

⁸⁶³ This political takeover took place about a century after the initial settlement of Canaanites at the site in the late 12th Dynasty (Bietak 1997: 109-9; Ben-Tor 2003: 246).

⁸⁶⁴ The use of these scarabs also as amulets for the living is indicated by examples inserted in rings (Keel 1995a: 106-108, §264-75).

were used as seals for the central administration in the Canaanite city-state system (Brandl 1993a: 130-31; 1993b: 207-11)

The beginning of the Second Intermediate Period in Egypt

The chronological limits of the Second Intermediate Period in Egypt are still the subject of debate. The end of the period is clearly defined historically and archaeologically (Bourriau 1997: 159-65; 2000: 210-17), while the beginning of the period, coinciding with the takeover of the eastern Delta by the Canaanite settlers and the subsequent political division of Egypt, is still a controversial issue (O'Connor 1997: 48-52; Ryholt 1997: 5-6; Ben-Tor et al 1999; Bourriau 2000: 190-99; Ben-Tor 2003: 246; 2004c: 28-30). Two major developments were noted in the archaeological evidence assigned to the period under discussion; as both these developments are attested in Egypt as well as in the Levant, they undoubtedly reflect changes of historical significance. Most important for our discussion is the fact that both developments are manifested in scarabs.

The first of these developments involves changes that were considered as marking the end of the Middle Kingdom and the beginning of the Second Intermediate Period sometime between the late 18th and early 17th centuries BCE (Ben-Tor 2003: 244-46). These changes are attested in the settlement and burial patterns of stratum F at Tell el-Dab'a, the occupation level associated with the Canaanite takeover of the site (Bietak 1997: 105-109); they are manifested in large houses surrounded by smaller ones, and elaborate tombs with servants buried in front of them, suggesting a far more hierarchical social structure compared with earlier levels (Bourriau 2000: 190). Stratum F also yielded a large Canaanite-style temple, which Bietak associates with King Nehsy, whose name is recorded on two blocks found in the temple's vicinity, though in much later contexts (Bietak 1997: 105-109). As shown above (§IIB 1a), the identification of King Nehsy recorded on eastern Delta monuments with King Nehsy of the Turin kinglist is far from certain. Nevertheless, regardless of the identity of the first independent ruler at Tell el-Dab'a, a political change at the site during the occupation level assigned to stratum F, which is dated between ca. 1710 and 1680 BCE (Bietak 1997: 90), is in full agreement with evidence from Egypt and the Levant that argues for a political change in Egypt at that particular time (Ben-Tor 2003; 2004a; 2004c; below).

It is now generally accepted that the historical events that mark the end of the Middle Kingdom in Egypt are the political takeover of the eastern Delta by the Canaanite settlers and the abandonment of the northern capital *iti-t3wy* by the late rulers of the 13th Dynasty (Bourriau 2000: 185; Quirke 2004: 171-72). A precise dating of these events is still speculative, and the developments that generated them are not entirely clear (O'Connor 1997: 48-52; Bourriau 2000: 195-99), yet, there is little doubt that these events are connected. As noted elsewhere (Bourriau 2000: 185, 196-99; Ben-Tor 2004c: 28-29), archaeological evidence from Egypt argues for dating the abandonment of the northern capital after the reign of Merneferre Ay, the last 13th Dynasty king with monuments in both Upper and Lower Egypt. The reign of this king is dated between the late 18th and early 17th centuries BCE (Ryholt 1997: 197; Bourriau 2000: 198). A slightly later date in the 17th century BCE for the abandonment of *iti-t3wy* has been suggested based on the funerary stela of Horemkhauf, an official sent from Elkab in Upper Egypt to bring statues for a local temple from the royal workshop at *iti-t3wy* (Redford 1997: 4); the writing of the funerary formula on his stela argues for a post-Middle Kingdom date (Bourriau 2000: 198-99; Quirke 2004: 171-72). A political change in Egypt between the late 18th and early 17th centuries BCE is supported by evidence from different regions in Egypt and Nubia indicating that this period saw the end of the centralized rule of the 13th Dynasty from the northern capital, and the abandonment of most Middle Kingdom royal cult centers (Ben-Tor 2004c: 28-29).

The impact of the beginning of the Second Intermediate Period on Egyptian/ Levantine relations

A political change in Egypt between the late 18th and early 17th centuries BCE is also indicated by evidence from the Levant suggesting a change in trade patterns between this region and Egypt occurring at that time (Ben-Tor 2003: 246; 2004c: 29). This period saw the end of extended commercial contacts between Egypt and Byblos, which lasted during the Old and Middle Kingdoms (Redford 1992: 37-43; Ryholt 1997: 86-90); the last Middle Kingdom king attested at Byblos, Ibiaw Wahibre (Ryholt 1997: 89-90), is dated between ca. 1712 and 1701 BCE (Ryholt 1997: 197). The evidence from Palestine argues that this period (the late 18th – early 17th centuries BCE) marks the beginning of significant commercial contacts between Egypt and Palestine (Ben-Tor 2003; above, introduction to chapter III) after a long break encompassing the Old and Middle Kingdoms in Egypt (Weinstein 1975; A. Ben-Tor 1982; 1986: 12-27; 1992: 118-20; Stager 1992: 31-41; Ben-Tor 1997; Van den Brink and Levy 2001). It is important to note that the long hiatus in commercial contacts between Egypt and Palestine coincides with the period of strong commercial contacts between Egypt and Byblos. As argued elsewhere (Ben-Tor 2003: 246), the end of trade contacts between Middle Kingdom Egypt and Byblos is best explained as resulting from the disintegrating power of the late 13th Dynasty and the subsequent retreat of its rulers to Thebes, where they were no longer able to continue commercial contacts with the Syrian coast. Bietak has proposed (verbal communication, 16 December 2006)

an alternative scenario, according to which internal strife among the coastal Syrian city-states created a shortage of tradable goods and brought the trade contacts with Egypt to an end. According to Bietak, this is the reason the Egyptians began trading with Palestine. He admits, however, that supporting evidence for such a development is lacking.

Egyptian/Levantine relations in the early Second Intermediate Period as reflected by scarabs

The shift in Egypt's trade course from the northern Levant to the southern Levant sometime between the late 18th and early 17th centuries BCE is supported by the scarabs found in both regions (Ben-Tor 2003: 242-46; 2004a; 2004c: 29). Scarabs found in Middle Bronze Age contexts at Byblos consist almost exclusively of Middle Kingdom Egyptian imports; they include early as well as late Middle Kingdom items, which reflect the strong commercial contacts between Egypt and Byblos throughout the Middle Kingdom (Ben-Tor 2003: 246). Most important, Egyptian Second Intermediate Period scarabs are completely absent at Byblos.⁸⁶⁵ In contrast, scarabs found in Palestine first occur in archaeological deposits corresponding to occupation levels at Tell el-Dab'a assigned to strata F – E/3, which are dated within the time span of the late 18th and early 17th centuries BCE (Bietak 1997: Fig. 4.3).

The Egyptian Middle Kingdom origin of the great majority of the scarabs found at Byblos has been discussed elsewhere (Ben-Tor 2003: 242-43) and can now be demonstrated by comparing these scarabs with the Middle Kingdom scarabs presented in this study. It is interesting to note, moreover, that the features of most private-name scarabs bearing names of Byblite rulers with the Egyptian title *ḥ3ty*-^c display the most distinctive 13th Dynasty features (Martin 1996), which indicate their late Middle Kingdom date and, most important, their Egyptian manufacture. Martin dated one of the scarabs bearing a name and title of a Byblite ruler (Martin 1971: no. 810) to the Second Intermediate Period (Martin 1969). This scarab, however, displays features of the early workshop at Tell el-Dab'a – Mlinar's Type III, which date this scarab within the time span of the late Middle Kingdom and early Second Intermediate Period (Mlinar 2004: 133-34, Figs. 15-16; above, §IIB 5c), and argue for its production at Tell el-Dab'a.⁸⁶⁶ An additional scarab of a Byblite ruler displaying Mlinar's Type III features is known (Martin 1971: no. 261), and it is argued in a forthcoming paper that both examples date from the late Middle Kingdom, when Tell el-Dab'a was still ruled from the residence *ḥt-t3wy* in the el-Lisht-Memphis region.

In contrast to the Egyptian origin of the scarabs found at Byblos, including the items bearing names of local princes, it has been shown (above, §IIIA-B; §IVA-B) that the great majority of Middle Bronze Age scarabs found in Palestine were made locally, arguing for relations of a different nature between Egypt and Palestine (Ben-Tor 2003: 242-46). As noted in the introduction to chapter III, the earliest evidence in Palestine for trade contacts between this region and Egypt in the Middle Bronze Age consists of some fifty sealings from Ashkelon stamped by scarabs of late Middle Kingdom type. Considering the nearly complete absence of any other evidence in Palestine for trade relations between Egypt and this region in the Middle Kingdom, it was suggested that these relations were initiated by the Canaanite population at Tell el-Dab'a and not by the Middle Kingdom residence at *ḥt-t3wy*, which continued the traditional commercial contacts with Byblos (Ryholt 1997: 86-90). This view is supported by the south Palestinian origin suggested for the bulk of the Canaanite pottery found at Tell el-Dab'a (McGovern and Harbottle 1997; McGovern 2000: 70-74), which strongly argues for Palestine as the primary place of origin of the Canaanite settlers in the eastern Delta, from the initial infiltration in the late Middle Kingdom through the entire Second Intermediate Period. This conclusion, which is based on neutron activation analysis of Canaanite jars found at Tell el-Dab'a, was recently challenged by petrographic analysis of these vessels, concluding that the bulk of the material originated in the northern Levant (Cohen-Weinberger and Goren 2004).⁸⁶⁷ Moreover, Goren (2003) has pointed out some serious methodological flaws in McGovern's study and has therefore argued that its conclusions should be treated with much skepticism and reservation. The studies of Cohen-Weinberger and Goren support the northern Levantine origin of the Canaanite settlers at Tell el-Dab'a suggested by Bietak in his earlier studies (Bietak 1984: 474-75),⁸⁶⁸ a conclusion to which he recently returned on the basis of the petrographic analysis results (verbal communication.16 December 2006).

⁸⁶⁵ As noted elsewhere (Ben-Tor 2003: 246, n. 20), the isolated Canaanite scarabs found at the site may have arrived from Palestine or Egypt in the final phase of the Second Intermediate Period or in the New Kingdom.

⁸⁶⁶ The Second Intermediate Period royal-name scarabs presented by Martin as displaying identical features (UC 11682, UC 11815) display in fact different features (Tufnell 1984: Pls. 57, 60: 3261, 3365), and date from a later Second Intermediate Period phase (above, §IIB 1).

⁸⁶⁷ These authors point out a change in trade patterns between Egypt and the Levant in the late 18th and early 17th centuries BCE (Cohen-Weinberger and Goren 2004: 71, 84), but their results suggest that "the relations between the settlers of Tell el-Dab'a and the northern Levant kept flourishing during the entire Middle Kingdom Second Intermediate Period chronological sequence" (2004: 84).

⁸⁶⁸ See also Aston 2002: 55-57.

A northern Levantine origin is generally accepted for the Levantine Painted Ware found in Middle Kingdom deposits at Tell el-Dab`a and elsewhere in Egypt (Bach 2000: 146-64). However, these consist of a small number of vessels, which are most likely the result of the close commercial contacts between Egypt and the northern Levant during the Middle Kingdom. In a recent study of the MBIIA ceramic imports at Tell el-Dab`a Aston presented parallels for the Levantine imports from both southern and northern Canaan (Aston 2000: 45-49), but notes that most parallels come from the north, i.e. from the Sharon plain north along the northern Israeli and Lebanese coasts at least as far as Byblos (Aston 2002: 55). He further notes, however, that our knowledge of the MBIIA in southern Canaan depends heavily on old and/or mainly unpublished excavations, in distinct contrast to the Sharon Plain and northern Israel (Aston 2002: 55).⁸⁶⁹ MBIIA ceramic material from the recent excavations at Ashkelon was examined by Bietak (See the introduction to chapter III), who observed ceramic types that are absent at Tell el-Dab`a, which he considers as supporting evidence for his suggested northern Levantine origin of the Canaanite settlers in the eastern Delta (verbal communication. 16 December 2006).

The origin of the Hyksos

The controversial results of the chemical and geological analyses of the Canaanite pottery at Tell el-Dab`a can only be resolved by experts in these fields. It is argued here, however, that the evidence from Egypt and the Levant suggests Palestine as the primary place of origin of the Canaanite population at Tell el-Dab`a throughout the Second Intermediate Period, and this conclusion is supported by the evidence of the scarabs found in both regions. The initiation of commercial contacts between Egypt and Palestine following the Canaanite political takeover of the eastern Delta, after a millennium of hardly any contact between the two regions (above), argues in favor of a Palestinian origin for the Canaanite settlers at Tell el-Dab`a, which would be expected to initiate commercial contacts with their place of origin. Moreover, the fact that Canaanite scarab production is attested in the Middle Bronze Age only at Tell el-Dab`a and Palestine supports kin relations between the two populations and argues against the northern Levantine origin suggested for the Canaanite settlers in the eastern Delta.

Aston argues (2002: 56) that McGovern's suggested southern Palestinian origin for Levantine imports in Middle Kingdom occupations levels at Tell el-Dab`a contradicts the generally accepted trade relations between Egypt and Byblos in the Middle Kingdom. This is, however, not necessarily the case. One of the most intriguing issues concerning the Levantine MBIIA ceramic imports in Egypt is that only isolated examples have been found in 12th Dynasty contexts (Bagh 1998; Arnold et al. 1995: 16-20), although trade relations between Egypt and Byblos are attested already in the early Middle Kingdom (above). Arnold et al. argue that the initial importation of Canaanite jars at el-Lisht in the 13th Dynasty must have been connected to the rise of Tell el-Dab`a as a trading center in the northeastern Delta (Arnold et al. 1995: 30). There is little doubt that the port of Tell el-Dab`a played an important role in the trade with the Levant during the late Middle Kingdom (Aston 2002: 55-57). As recently argued by Aston: "it is very probable that the royal crown not only actively supported the growth of Tell el-Dab`a as a maritime port, but probably actively encouraged the immigration of Levantine peoples, who perhaps, not only carried out the actual trading, but themselves also increased demand for Levantine goods" (Aston 2002: 56). Aston further argues that the occurrence of Canaanite imports at el-Lisht in archaeological deposits dated to the 13th Dynasty, though comprising only 3.4% of the pottery refuse (Arnold et al. 1995: 30), indicate strong contacts between the residence at *ḥtj-t3wy* and Tell el-Dab`a (Aston 2002: 56). Considering the most likely scenario that the initial importation of Canaanite jars into Egypt occurred only after the initial settlement of Asiatics at Tell el-Dab`a, the MBIIA imported vessels could have come from the region of Byblos or, just as likely, from the region of southern Palestine, or both.⁸⁷⁰ The sealings found in MBIIA contexts at Ashkelon strongly argue for the existence of sea trade with Tell el-Dab`a in the early 13th Dynasty (introduction to chapter III).

The Palestinian origin of the Canaanite population in the eastern Delta is further supported by the fact that jar handles stamped by scarabs, which are well known in Palestine (Keel 1995: 119-20) are completely absent in the northern Levant, yet such items imported into Egypt were found, albeit in small numbers, at Tell el-Dab`a (Ben-Tor 1994: 10, and n. 9; Bietak 1996: 60, Fig. 51) and el-Lisht (Arnold et al. 1995: 28, Fig. 1). This argues against the northern Levantine origin suggested by Cohen-Weinberger and Goren for the jar handle stamped by a private-name scarab bearing the title and name *ḥ3ty-^c šimw* (Cohen-Weinberger and Goren 2004: 84). These scholars contend that the component *Shemu*, which is known from the names of a number of Byblite rulers, and the title *ḥ3ty-^c* frequently assumed by rulers of Byblos, support the petrographic analysis that indicates the northern Levant as the place of

⁸⁶⁹ Aston compares, however, this situation with that of the Syrian-Lebanese coastal area, where our knowledge also relies on the old reports of Ugarit, Byblos and Sidon, and states that this makes a comparison of the Tell el-Dab`a material with the old reports in this area and in southern Palestine valid (Aston 2002: 55).

⁸⁷⁰ Aston raises the possibility of southern Palestinian production of these MBIIA Canaanite jars, their shipment to an intermediate town in the northern Levant where they were filled and later sent to Tell el-Dab`a (Aston 2002: 56).

origin of this jar. Yet, as not a single example of a jar handle stamped by scarabs is known from any site in the northern Levant, a Byblite origin for this jar is highly unlikely. Moreover, the custom of stamping jar handles in Palestine is not attested in contexts of the early Palestinian series, which suggests a late Middle Bronze Age date for this handle, when no evidence exists for commercial or political contacts between Egypt and Byblos. It should also be noted that the name and title on the impression are not attested in the preserved corpus of Second Intermediate Period private-name scarabs (Quirke 2004), and the actual date of the scarab used for the impression is far from certain as its features are not known. It is therefore possible that, as in the case of other examples, the official whose name is inscribed on the impression, though undoubtedly of Semitic origin, is much earlier than the jar itself and has no association with it (Ben-Tor 1994). The fact that Byblite rulers are always attested as “*ḥ3ty- n Kpn*” on their scarabs, also argues against a Byblite origin for the Tell el-Dab`a stamped jar handle (see also Bietak 1996: 60).

The Palestinian origin of the Canaanite population in the eastern Delta is also indicated by the number of Second Intermediate Period royal-name scarabs found in Palestine and their complete absence in the northern Levant (Weinstein 1981: 8-10; 1991: 107-108). These scarabs suggest commercial and political relations between the Canaanite rulers in the eastern Delta and Palestine, which are supported by the same distribution of Second Intermediate Period private-name scarabs (Weinstein 1981: 8-10). The complete absence of Egyptian Second Intermediate Period scarabs – name scarabs and design scarabs – in the northern Levant argues against significant commercial contacts between this region and Egypt in the Second Intermediate Period.

The almost complete absence of scarabs in Palestine in phases corresponding with the Middle Kingdom suggests that the initial importation of scarabs to this region was the outcome of the Canaanite settlement in the eastern Delta (Ben-Tor 1994; 1997). The fact that Canaanite production of scarabs is first attested at Tell el-Dab`a, and later only in Palestine supports the view that the Canaanite workshops in Palestine were inspired by the workshops at Tell el-Dab`a, which was most likely to occur in the case of kin relations (Ben-Tor 1994: 11; 1997: 187-88). Moreover, the complete absence of Egyptian Second Intermediate Period objects in the northern Levant is difficult to explain if this region was the place of origin of the bulk of the population that settled in the eastern Delta. The fact that scarabs were first mass-produced in Middle Bronze Age Palestine following the Canaanite takeover of the eastern Delta indicates strong Egyptian cultural influence in Palestine at that time, which undoubtedly resulted from close commercial and political contacts. There is no indication for close commercial and political contacts with Egypt in the Second Intermediate Period archaeological evidence from the northern Levant.

Egyptian/Levantine relations in the Hyksos Period

Like the first political development discussed above, the second political development noted during this period is manifested in archaeological evidence in Egypt and in Palestine. It is indicated first and foremost in significant changes at Tell el-Dab`a, where expansion of the town and notable changes in the material culture were observed in stratum E/2, and attributed to the rise of the 15th Dynasty – the Hyksos (Bietak et al. 2001). Other significant developments at this time are attested elsewhere in the eastern Delta in the founding of other Canaanite-populated sites such as Tell Fauziya, Farasha, Tell el-Yehudiyeh, Tell el-Maskhuta, and Tell el-Hebua, which display a ceramic repertoire identical to that of Tell el-Dab`a strata E/2 – D2 (Weinstein 1992: 27-28; Bietak 1997: 4.24; Bourriau 2000: 195; above, §IIb 5a-5b). The distinctive mixture of Egyptian-Levantine material cultures is attested only in the eastern Delta, however, mainly east of the Pelusiac branch; the material culture elsewhere in Egypt is entirely Egyptian, including the Lower Egyptian territory ruled from Avaris (Bourriau 1997; 2000: 196-203). The archaeological evidence is inconclusive with regard to the question whether the rise of the Hyksos dynasty was the outcome of an invasion involving a military takeover (Redford 1992: 101-106; Ryholt 1997: 302-304), or a peaceful takeover from within after a long and gradual infiltration of Asiatics into the eastern Delta and their assimilation with the local population (Bietak 1997: 111-15; Bietak et al. 2001). The evidence at Tell el-Dab`a argues for the second scenario, but resolving this issue requires more definitive evidence. All the same, a political turning point sometime between 1650-1620 BCE is now generally accepted based on the archaeological evidence (Ryholt 1997: 302-303; Bietak et al. 2001).

Political developments associated with the rise of the 15th Dynasty at Avaris are attested also in a significant increase and rapid growth of highly organized urban settlements in Palestine – the Middle Bronze Age Canaanite city-states (Kempinski 1992: 182-99; Oren 1997). Close commercial contacts between Egypt and Palestine in the Second Intermediate Period and mutual cultural influence at that time are indicated in the archaeological evidence from both regions (Bietak 1997: 87-115; Holladay 1997; McGovern and Harbottle 1997; Oren 1997; Bourriau 2000: 185-203). Moreover, it is now generally accepted that the names of the foreign rulers in the eastern Delta attested on scarabs and other monuments are of West Semitic origin (Ward 1976; Redford 1997: 20-21; Ryholt 1997: 99-102, 126-30; Schneider 1998: 31-49). As shown above (§IIb 1), royal-name scarabs of this period, which

are contemporary with the late Palestinian series, display a distinct Canaanite affinity, which argues for their production by artisans of Canaanite origin, and for their inspiration from designs and features of Canaanite scarabs manufactured in Palestine. Moreover, Weinstein has pointed out that more than 80% of the royal-name scarabs of the Hyksos period excavated in Western Asia came from southern Palestine (1991: 108).⁸⁷¹

The MBIIB Canaanite city-states in Palestine yielded a large number of scarabs, which is unparalleled in this region at any other period and undoubtedly reflects strong Egyptian cultural influence. As demonstrated in the introduction to chapter IV, the scarab types that dominate the late Palestinian series first occur in Group III at Jericho. Canaanite pottery of the type found in Group III at Jericho was found at Tell el-Dab`a beginning in stratum E/2 (Ward and Dever 1994: 80), the phase when imported Canaanite scarabs (Mlinar's Type IV) are first attested at the site (Mlinar 2004: Fig. 15). Moreover, the earliest deposit that yielded a Second Intermediate Period royal-name scarab – the Yaqubhar scarab from Shiqmona – includes Canaanite pottery of the type found in Group III at Jericho (above, §IIB 1). Due to the scarcity of contemporary written sources, we cannot determine what triggered the changes in the Canaanite scarab style, or the reason for the beginning of large-scale importation of scarabs into Egypt at this point. The evidence indicates, however, that political developments associated with the rise of the 15th Dynasty in Egypt are reflected in the production and distribution of Canaanite scarabs made in Palestine.

The scarcity of written sources from this period also affects our ability to establish the precise nature of the relations between Egypt and Palestine. It is clear that the rise of the Hyksos was associated with the growth and development of the MBIIB Canaanite city-states in Palestine. This is supported by the newly established Canaanite-populated sites in the eastern Delta, and by the archaeological evidence in northern Sinai and Wadi Tumilat indicating the existence of active land trade routes between the eastern Delta and Palestine in the MBIIB (Holladay 1997: 188-98; Oren 1997: 273-79). The number of Canaanite amphorae found at Tell el-Dab`a, which is estimated at more than two million (Bietak 1996: 20; Oren 1997: 273; Stager 2002: 361), suggests sea trade of immense scale between Egypt and the Levant during the Middle Bronze Age (Holladay 1997). These amphorae reflect trade contacts throughout the period of the Asiatic settlement at Tell el-Dab`a, and undoubtedly include also material from the late Second Intermediate Period, when large-scale trade between Egypt, the Levant, and Cyprus is indicated by imports found at Tell el-Dab`a (Bietak 1997: 109; Holladay 1997: 209), and by the detailed description of boats filled with “fine products of Retenu” seized by Kamose (Redford 1997: 14). It can be argued that the description of the products of Retenu in the second Kamose stela reflects the final phase of Hyksos rule at the time of Apophis, when a sizeable fleet allowing large-scale sea trade with the east Mediterranean is most likely to include also the northern Levant. Moreover, Oren points out the major southward shift of settlement in MBIIB Canaan, and the emphasis on site location on or near the Mediterranean coast (1997: 255-56), arguing for the important economic and political role of these sites during the Hyksos period (1997: 271-73). The evidence offered by Oren supports the Palestinian origin suggested for the bulk of the Canaanite jars found at Tell el-Dab`a (McGovern and Harbottle 1997; McGovern 2000), which indicate sea trade of unprecedented scale between Egypt and Palestine in the Second Intermediate Period. This would explain the strong Egyptian cultural influence in Palestine during this period, and the large-scale importation of Canaanite scarabs into Egypt.

Scarabs reflecting Egyptian/Levantine relations in the Hyksos period

As demonstrated above (§IVA 9-10), the late Palestinian scarab series display a mixture of motifs equally inspired from the Egyptian and Levantine cultural spheres (see also Ben-Tor 2004c: 30-31). As these scarabs were traditionally described in the literature as “Hyksos scarabs” (Ward 1987: 523-26), some of these motifs were considered as representing a “Hyksos religion” as in the case of the nude goddess, whom Redford considers as a likely representation of the goddess Anat (1992: 117). However, scarabs depicting the nude goddess are exclusively of Palestinian origin and are extremely rare in Egypt, including the eastern Delta (above, §IIA 10d). The isolated examples displaying design class 10 (human and mythical figures) that can be assigned an Egyptian Second Intermediate Period origin show exclusively Egyptian designs (Pl. 41: 1-3). Moreover, Canaanite scarabs depicting design class 10 from Second Intermediate Period contexts in Egypt display a choice of more Egyptianized scenes in comparison with Palestine (above, §IIA 10; §IVA 10), and motifs like the toga wearer or the nude goddess are completely absent or extremely rare.

The Palestinian origin of almost the entire corpus of Middle Bronze Age scarabs found in Palestine was demonstrated above. Royal-name and private-name scarabs of this period, however, though displaying inspiration from contemporary Canaanite scarabs, were undoubtedly produced in the eastern Delta, most probably at Tell el-Dab`a (above, §IIB 1). Egyptian design scarabs of the Second Intermediate Period display a small repertoire of designs inspired by both late Middle Kingdom and Canaanite prototypes, the latter indicating their production within the Hyksos cultural sphere, most probably at Tell el-Dab`a (Ben-Tor 2004c: 33-37; above, §IIA 3a4; §IIA 3c; §IIA

⁸⁷¹ See also Keel 1995a 233-35, §632-33.

3e). The large-scale production of scarabs in Palestine throughout the MBIIB, and the large-scale importation of these scarabs into Egypt must be associated with the particular political situation in Egypt during the Second Intermediate Period – i.e. the rule of a dynasty of Canaanite origin over northern Egypt. The mixture of Egyptian/Levantine material culture in the eastern Delta, and the popularity of Canaanite scarabs from Palestine in Egypt during this period, reflect the Canaanite origin of the ruling dynasty in the eastern Delta and argue for its Palestinian origin.

As correctly noted by Ward (Ward and Dever 1994: 4), however, the evidence does not indicate a uniform “Hyksos culture” extending from the eastern Delta into Palestine and reflecting control of the Hyksos over southern Palestine. This is indicated above all by the difference in material cultures between the eastern Delta and Palestine during this period, which is manifested first and foremost in the distinctive ceramic repertoire of the eastern Delta. The latter – a mixture of Egyptian, Canaanite, and locally made Canaanite style pottery – is completely absent in Middle Bronze Age Palestine where local material culture is dominant in all excavated sites. Scarabs from the eastern Delta, although including a distinct majority of Canaanite imports, display a choice of motifs that differs from that attested in Palestine; the toga wearer is completely absent in this region, and designs depicting the nude goddess and scenes including two or more figures in gestures inspired from the Levantine cultural sphere are extremely rare (above). These differences between the eastern Delta and Palestine suggest independent developments and argue against a uniform culture encompassing both regions. Moreover, the complete absence of Second Intermediate Period Egyptian inscriptions in Palestine strongly argues against Egyptian domination in this region (see also Ryholt 1997: 130-32). This is further indicated by a comparison with the situation during the New Kingdom, when monuments found in Late Bronze Age contexts in this region reflect the Egyptian empire in Asia during this period. The difference between Egyptian/Palestinian relations in the Middle and Late Bronze Ages is also indicated in the scarabs; in contrast to the local origin of most scarabs found in Middle Bronze Age contexts in Palestine, most scarabs found in Late Bronze Age contexts in this region are Egyptian imports.

The importation of Canaanite religious beliefs and practices into Tell el-Dab`a is attested in the image of the Canaanite storm god depicted on a local cylinder seal, and in Canaanite-type temples built at the site (Bietak 1996: 26-29; 1997: 105-108). The archaeological evidence at Tell el-Dab`a and royal inscriptions of the Second Intermediate Period show a gradual adaptation of Egyptian culture and religious beliefs by the foreign population at the site (Bietak 1991; 1996; 1997: 87-115). Ryholt (1997: 148-50) argues, contra Redford, that no contemporary evidence supports a “Hyksos religion,” a notion based exclusively on New Kingdom inscriptions and on the Manethonian tradition. Ryholt further argues that royal monuments of this period demonstrate the adaptation of Egyptian royal titulary by the foreign rulers, their worship of Egyptian gods, and their usurpation of Middle Kingdom royal statues. Moreover, the identification of the Egyptian god Seth with the Canaanite god Ba`al is not attested before the New Kingdom, and there is no evidence for the worship of Seth beyond the limits of Tell el-Dab`a during the Second Intermediate Period (see also Ben-Tor 2004c: 38). The only clear association of the foreign rulers with Canaanite gods is attested in theophoric names like Aper-`Anat and Yaqubhar, which do not indicate worship of these gods in the eastern Delta. The evidence thus argues for a highly Egyptianized Middle Bronze Age culture in the eastern Delta, which differs considerably from the Canaanite culture attested in Middle Bronze Age Palestine.

Unlike the situation in the eastern Delta, the Egyptian cultural influence in Palestine during this period is manifested almost exclusively in scarabs: their large-scale local production, their common use as funerary amulets in Canaanite tombs, and the strong Egyptian influence on the iconography of their designs. Yet, as argued elsewhere (Ben-Tor 2004c: 38-39), the adaptation of Egyptian iconography on Canaanite scarabs does not necessarily imply the adaptation of Egyptian religious beliefs; the only Egyptian religious practice attested by these scarabs is their use as funerary amulets. The Levantine-inspired motifs, scenes, and gestures depicted on Canaanite scarabs found in Palestine have no meaning in the Egyptian religious sphere. Moreover, scenes reflecting Egyptian religious beliefs, which occur on late Middle Kingdom scarabs, are conspicuously absent on Canaanite scarabs (above, §IA 9-10; §IIIA 9-10; §IVA 9-10), and Egyptian motifs like the Hathor symbol are assimilated into the Levantine cultural sphere (§IIIA 10d2, §IVA 10d2). It is interesting to note the alternating of Egyptianized figurative motifs like human and mythical figures in identical scenes (e.g. Keel 1995a: Figs. 389-93, 452-60, 498-504, 518-25), which suggests adaptation of Egyptian form and its assimilation into the Canaanite cultural sphere rather than adaptation of Egyptian beliefs (Ben-Tor 2004c: 38-39). The scarabs from Second Intermediate Period Egypt and Middle Bronze Age Palestine thus support the evidence against a uniform “Hyksos culture” extending from the eastern Delta into southern Palestine at that time. They also argue against control of the rulers of Avaris over Palestine (see also Ben-Tor 2004c: 39).

Tell el-`Ajjul

A final point of interest is the special role of Tell el-`Ajjul in Egyptian/Canaanite relations during the Second Intermediate Period; this role has been noted in a number of studies arguing for the identification of the site with Sharuhen (Kempinski 1974; Weinstein 1981: 8-9; 1991: 106; Bietak 1996: 60; Oren 1997: 271-73). The exceptional number of royal-name scarabs found at the site, which far exceeds that of all other sites in Palestine, is demonstrated in the list of royal-name scarabs from this region presented by Weinstein (1981: Fig. 2; 1991: 106). Weinstein points out that the site yielded more Hyksos royal-name scarabs than any site in Egypt (1991: 106); however, since most royal-name scarabs of this period that originated in Egypt did not come from excavations (above, §IIB 1), this does not have any historical implications.

The typology of the late Palestinian series presented in chapter IV of this study demonstrates that as in the case of royal-name scarabs, Tell el-`Ajjul yielded also an exceptional number of Egyptian design scarabs of this period, which far exceeds that found at any other site in Palestine. As Egyptian design scarabs of the Second Intermediate Period are extremely rare elsewhere in the Levant, including other sites in Palestine, the number of examples found at Tell el-`Ajjul undoubtedly reflects special relations with the eastern Delta. However, the archaeological evidence at Tell el-`Ajjul – the architecture and ceramic assemblages – reflects a typical, albeit affluent Canaanite town that differs considerably from the typical eastern Delta cultural sphere reflected in the material culture found in this region (Ben-Tor 2004c: 39). It can therefore be concluded that the “Kingdom of Avaris,” which included northern Egypt as far south as Cusae (Bourriau 2000: 200-203; above, introduction to chapter II) did not extend into southern Palestine.

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Pnina Arad drew the scarabs in the Israel Museum Jerusalem, and prepared all the plates.

Illustrations of Rishon Leziyyon scarabs, courtesy of the Israel Antiquities Authority.

Illustrations of El-Lisht seal impressions, courtesy of the Metropolitan Museum of Art.

Illustrations of Tell el-Maskhuta scarabs, courtesy of Dr. John S. Holladay, Jr.

Illustrations of Elephantine seal impressions, courtesy of Dr. Cornelius von Pilgrim.

Egyptian Scarabs
of the Late Middle Kingdom

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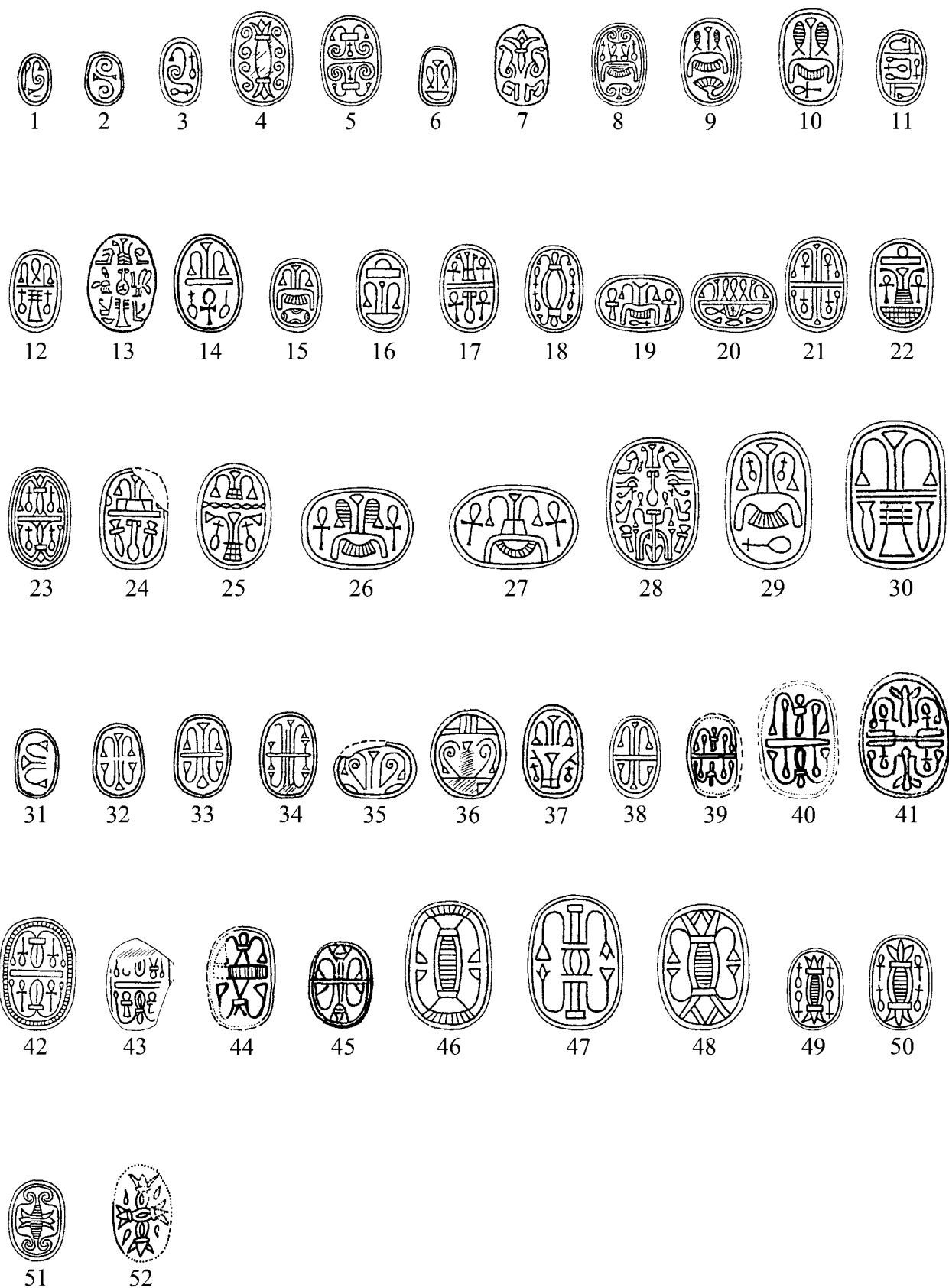


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66. Gratien 2001: Fig. 2: 7D-56

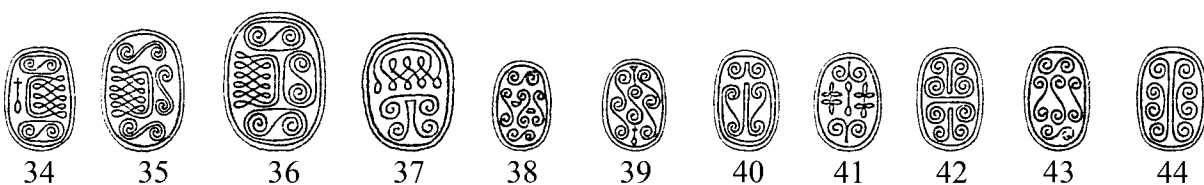
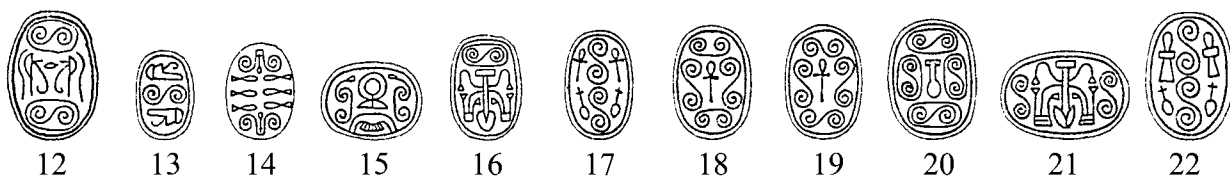
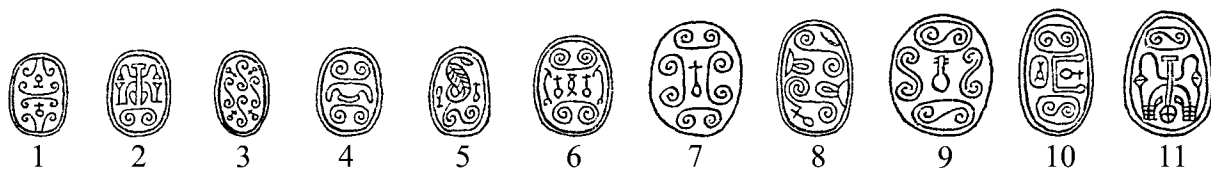


Plate 3

1. Tufnell 1975: Fig. 3: 119
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65. Tufnell 1975: Fig. 3: 150
66. Tufnell 1975: Fig. 3: 151

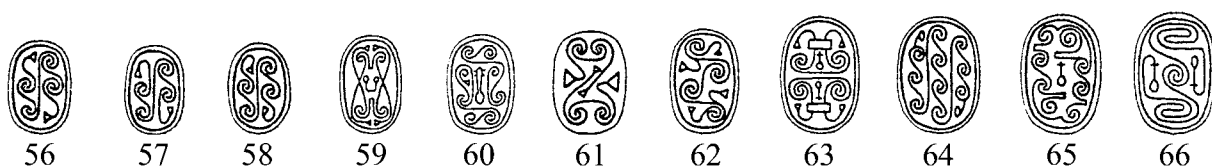
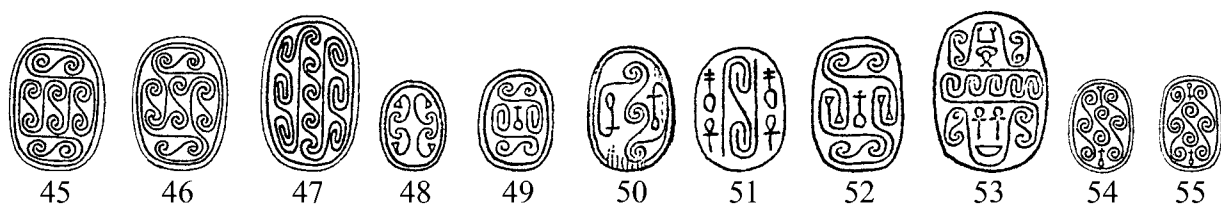
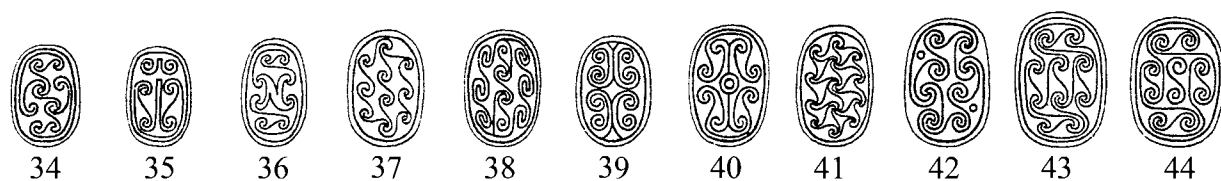
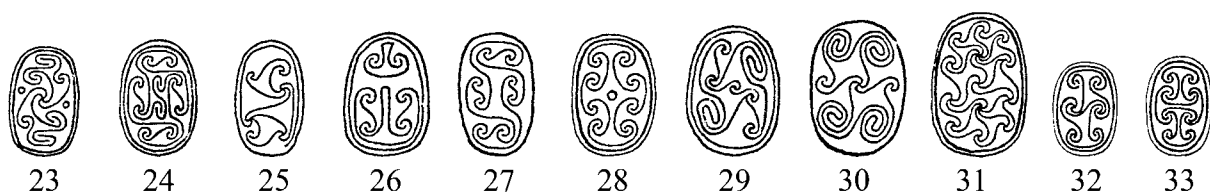
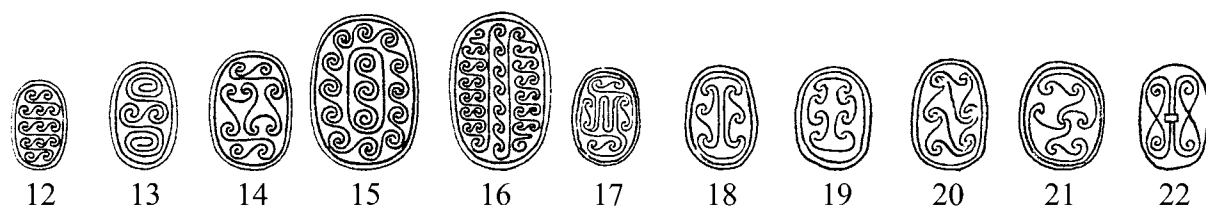
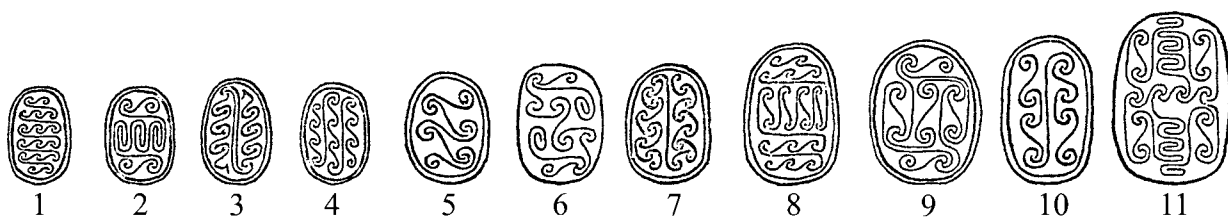


Plate 4

1. Tufnell 1975: Fig. 3: 152
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29. Tufnell 1975: Fig. 4: 220
30. Tufnell 1975: Fig. 4: 221
31. Tufnell 1975: Fig. 4: 182
32. Tufnell 1975: Fig. 4: 209
33. Von Pilgrim 1996: Fig. 99: 205
34. Von Pilgrim 1996: Fig. 99: 163
35. Von Pilgrim 1996: Fig. 99: 245
36. Von Pilgrim 1996: Fig. 99: 149
37. Von Pilgrim 1996: Fig. 99: 127
38. Von Pilgrim 1996: Fig. 99: 118
39. Von Pilgrim 1996: Fig. 99: 203
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41. Von Pilgrim 1996: Fig. 99: 13
42. Von Pilgrim 1996: Fig. 99: 252
43. Von Pilgrim 1996: Fig. 99: 25
44. Von Pilgrim 1996: Fig. 99: 253
45. Von Pilgrim 1996: Fig. 99: 126
46. Von Pilgrim 1996: Fig. 99: 244
47. Von Pilgrim 1996: Fig. 100: 146
48. Von Pilgrim 1996: Fig. 100: 105
49. Von Pilgrim 1996: Fig. 100: 7
50. Von Pilgrim 1996: Fig. 100: 136
51. Von Pilgrim 1996: Fig. 100: 223
52. Von Pilgrim 1996: Fig. 100: 216
53. Von Pilgrim 1996: Fig. 100: 23
54. Von Pilgrim 1996: Fig. 100: 8
55. Von Pilgrim 1996: Fig. 100: 125
56. Dunham 1967: Fig. 11: 32.1.72
57. Dunham 1967: Fig. 11: 32.1.191
58. Dunham 1967: Fig. 11: 32.1.133
59. Dunham 1967: Fig. 12: 32.1.82
60. Dunham 1967: Fig. 12: 32.1.134
61. Dunham 1967: Fig. 12: 32.1.141
62. Dunham 1967: Fig. 12: 32.1.170
63. Gratien 2001: Fig. 2: 6B-245
64. Gratien 2001: Fig. 2: 6B-58
65. Gratien 2001: Fig. 2: 6B-81
66. Gratien 2001: Fig. 3: 7D-25

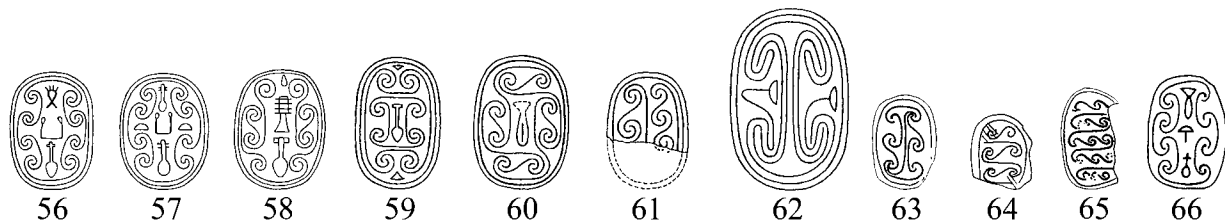


Plate 5

1. Gratien 2001: Fig. 3: 6B-156
2. Gratien 2001: Fig. 4: 6B-246
3. Gratien 2001: Fig. 5: 7D-69
4. Gratien 2001: Fig. 5: 6B-136
5. MMA 09.180.969
6. MMA 09.180.1061
7. MMA 09.180.1221
8. MMA 20.1.30
9. MMA 20.1.112
10. MMA 20.1.115
11. MMA 22.1.126
12. MMA 22.1.205
13. MMA 22.1.319
14. MMA 22.1.371
15. MMA 22.1.387
16. Engelbach 1923: Pl. 20: 34
17. Engelbach 1923: Pl. 20: 36
18. Engelbach 1923: Pl. 20: 38
19. Engelbach 1923: Pl. 20: 39
20. Engelbach 1923: Pl. 20: 40
21. Engelbach 1923: Pl. 20: 43
22. Engelbach 1923: Pl. 20: 44
23. Engelbach 1923: Pl. 20: 45
24. Engelbach 1923: Pl. 20: 46
25. Engelbach 1923: Pl. 20: 47
26. Engelbach 1923: Pl. 20: 48
27. Engelbach 1923: Pl. 20: 49
28. Engelbach 1923: Pl. 20: 50
29. Engelbach 1923: Pl. 20: 51
30. Engelbach 1923: Pl. 20: 52
31. Engelbach 1923: Pl. 20: 53
32. Tufnell 1975: Fig. 4: 222
33. Tufnell 1975: Fig. 4: 223
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46. Tufnell 1975: Fig. 4: 236
47. Tufnell 1975: Fig. 4: 237
48. Von Pilgrim 1996: Fig. 101: 69
49. Von Pilgrim 1996: Fig. 101: 210
50. Von Pilgrim 1996: Fig. 101: 334
51. Engelbach 1923: Pl. 20: 61
52. Engelbach 1923: Pl. 20: 80
53. Petrie and Quibell 1896: Pl. 80: 66
54. Dunham 1967: Fig. 12: 32.1.189
55. Gratien 2001: Fig. 2: 5F-49
56. Gratien 2001: Fig. 5: 5F-108
57. Gratien 2001: Fig. 5: 5F-25
58. Gratien 2001: Fig. 5: 5F-11
59. Gratien 2001: Fig. 6: 10A-18
60. Gratien 2001: Fig. 12: 5F-140
61. MMA 09.180.963
62. MMA 09.180.1220
63. MMA 22.1.334

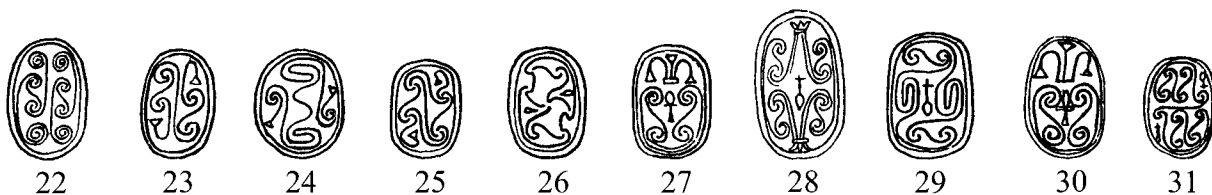
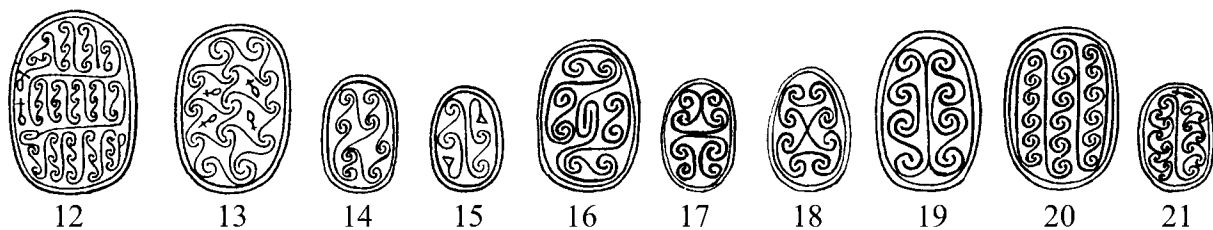
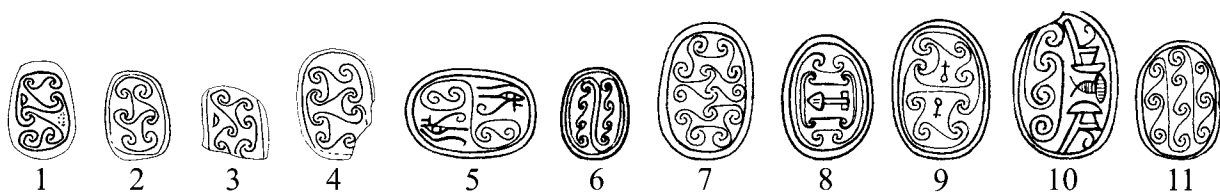
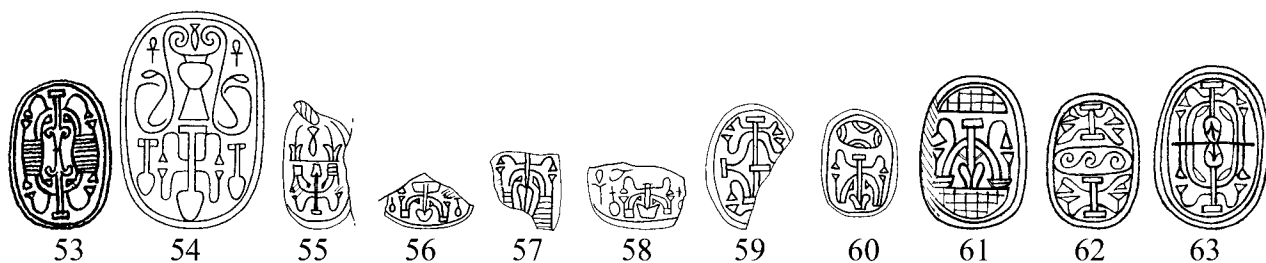
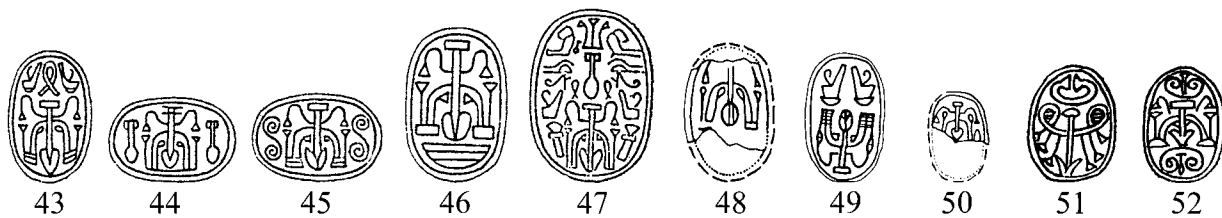
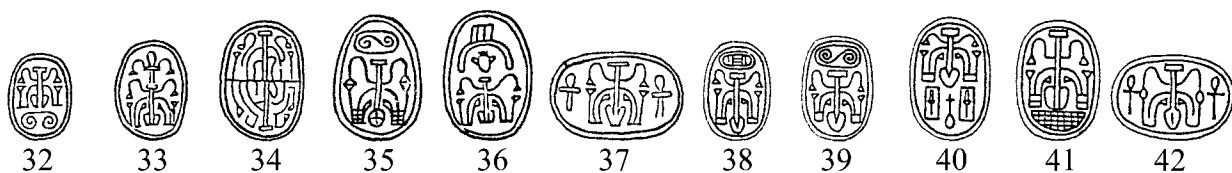
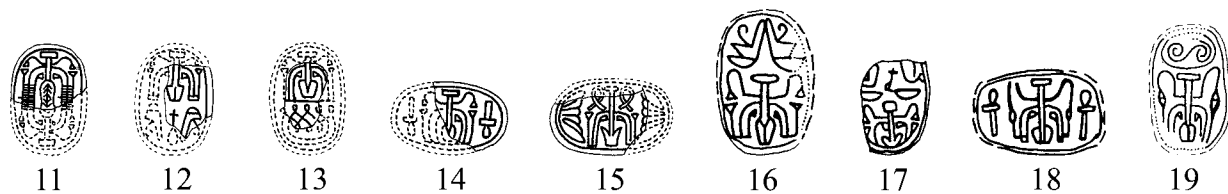
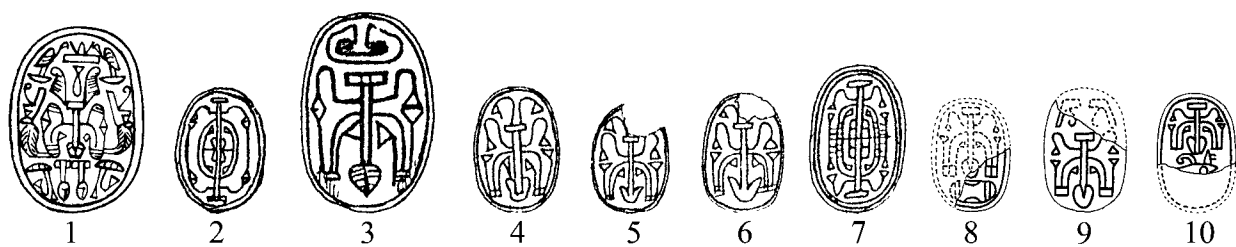
Design class 3A1 - sign of union (*sm3 t3wy*)

Plate 6

1. MMA 22.1.432
2. Petrie 1890: Pl. 10: 19
3. Petrie 1891: Pl. 8: 77
4. Petrie 1891: Pl. 8: 78
5. Petrie 1891: Pl. 8: 79
6. Petrie 1891: Pl. 8: 80
7. Petrie 1891: Pl. 8: 81
8. Reisner 1955: Fig. 11: 272
9. Reisner 1955: Fig. 11: 275
10. Reisner 1955: Fig. 11: 277
11. Reisner 1955: Fig. 11: 278
12. Reisner 1955: Fig. 11: 279
13. Reisner 1955: Fig. 11: 280
14. Reisner 1955: Fig. 11: 284
15. Reisner 1955: Fig. 12: 286
16. Von Pilgrim 1996: Fig. 101: 20
17. Von Pilgrim 1996: Fig. 101: 99
18. Von Pilgrim 1996: Fig. 101: 167
19. Von Pilgrim 1996: Fig. 101: 177
20. Tufnell 1975: Fig. 4: 238
21. Tufnell 1975: Fig. 4: 239
22. Tufnell 1975: Fig. 4: 240
23. Tufnell 1975: Fig. 4: 241
24. Tufnell 1975: Fig. 4: 242
25. Tufnell 1975: Fig. 4: 243
26. Tufnell 1975: Fig. 4: 244
27. Reisner 1955: Fig. 12: 303
28. Reisner 1955: Fig. 12: 304
29. Reisner 1955: Fig. 12: 305
30. Reisner 1955: Fig. 12: 306
31. Reisner 1955: Fig. 12: 310
32. Reisner 1955: Fig. 14: 351
33. Petrie 1890: Pl. 8: 65
34. Petrie, Brunton and Murray 1923: Pl. 65: 309
35. Von Pilgrim 1996: Fig. 104: 76
36. Von Pilgrim 1996: Fig. 104: 84
37. Von Pilgrim 1996: Fig. 104: 129
38. Von Pilgrim 1996: Fig. 104: 135
39. Von Pilgrim 1996: Fig. 104: 331
40. Petrie, Brunton and Murray 1923: Pl. 65: 313
41. Gratien 2001: Fig. 7: 5A-66
42. Gratien 2001: Fig. 12: 5C-162
43. Engelbach 1923: Pl. 20: 63
44. Engelbach 1923: Pl. 20: 65
45. Engelbach 1923: Pl. 20: 66



Design class 3A2 - *nbty* design

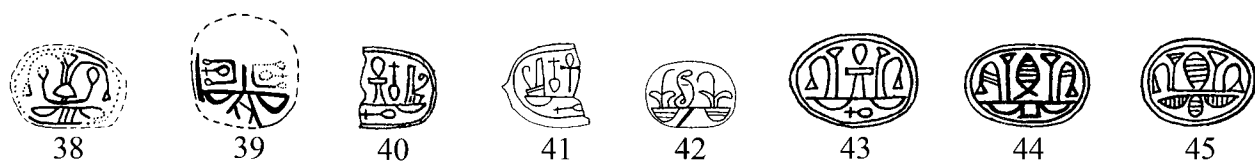


Plate 7

1. Reisner 1955: Fig. 14: 367
2. Petrie 1891: Pl. 10: 114
3. Reisner 1955: Fig. 14: 364
4. Reisner 1955: Fig. 14: 363
5. Petrie, Brunton and Murray 1923: Pl. 64: 279
6. Reisner 1955: Fig. 14: 365
7. Von Pilgrim 1996: Fig. 102: 104
8. Petrie, Brunton and Murray 1923: Pl. 64: 274
9. Petrie 1891: Pl. 10: 108
10. Von Pilgrim 1996: Fig. 102: 106
11. Reisner 1955: Fig. 14: 366
12. MMA 15.3.170
13. Reisner 1955: Fig. 15: 388
14. Reisner 1955: Fig. 15: 389
15. Reisner 1955: Fig. 15: 390
16. Petrie 1891: Pl. 9: 85
17. Petrie, Brunton and Murray 1923: Pl. 64: 273
18. MMA 22.1.342
19. Reisner 1955: Fig. 13: 333
20. Reisner 1955: Fig. 13: 328
21. Reisner 1955: Fig. 13: 329
22. Von Pilgrim 1996: Fig. 102: 227
23. Reisner 1955: Fig. 13: 332
24. Von Pilgrim 1996: Fig. 102: 30
25. Von Pilgrim 1996: Fig. 102: 151
26. Von Pilgrim 1996: Fig. 102: 152
27. Reisner 1955, Fig. 13: 331
28. Petrie, Brunton and Murray 1923: Pl. 65: 337
29. Reisner 1955: Fig. 12: 311
30. Reisner 1955: Fig. 12: 314
31. MMA 09.180.943
32. Petrie 1891: Pl. 9: 60
33. Engelbach 1923: Pl. 20: 11
34. Petrie 1891: Pl. 8: 51
35. Reisner 1955: Fig. 14: 357
36. Von Pilgrim 1996: Fig. 102: 257
37. Von Pilgrim 1996: Fig. 103: 42
38. Reisner 1955: Fig. 13: 320
39. Petrie 1891: Pl. 9: 86
40. Reisner 1955: Fig. 14: 356
41. Petrie 1891: Pl. 8: 54
42. Reisner 1955: Fig. 12: 296
43. Petrie 1891: Pl. 8: 53
44. Petrie 1891: Pl. 10: 91
45. Reisner 1955: Fig. 12: 298
46. Petrie and Quibell 1896: Pl. 80: 49
47. Petrie 1891: Pl. 9: 88
48. Von Pilgrim 1996: Fig. 103: 155
49. Petrie, Brunton and Murray 1923: Pl. 65: 302
50. Reisner 1955: Fig. 12: 290
51. Reisner 1955: Fig. 12: 293
52. Reisner 1955: Fig. 12: 294
53. Petrie 1891: Pl. 9: 82
54. Reisner 1955: Fig. 12: 292
55. Reisner 1955: Fig. 14: 369
56. Petrie 1891: Pl. 8: 48
57. Petrie 1891: Pl. 8: 56
58. Engelbach 1923: Pl. 20: 67
59. Petrie, Brunton and Murray 1923: Pl. 64: 261
60. Reisner 1955: Fig. 14: 359
61. Petrie, Brunton and Murray 1923: Pl. 65: 323
62. Petrie, Brunton and Murray 1923: Pl. 64: 287
63. Petrie 1891: Pl. 8: 63
64. Petrie, Brunton and Murray 1923: Pl. 64: 280

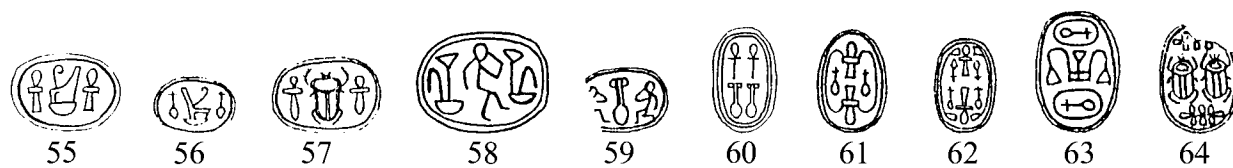
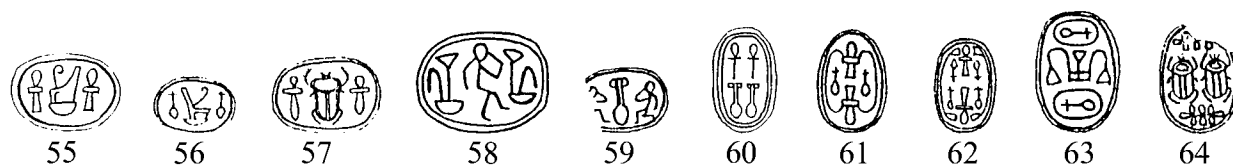
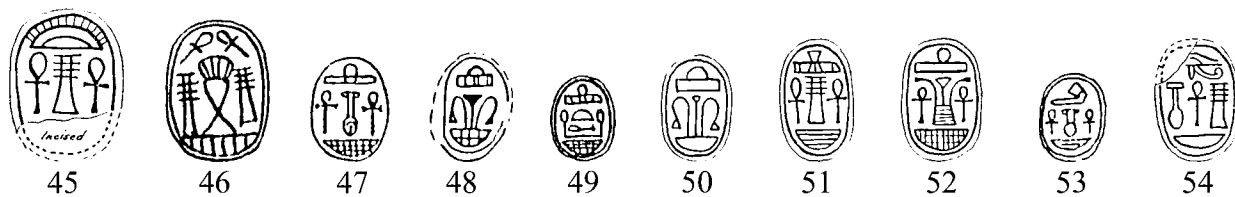
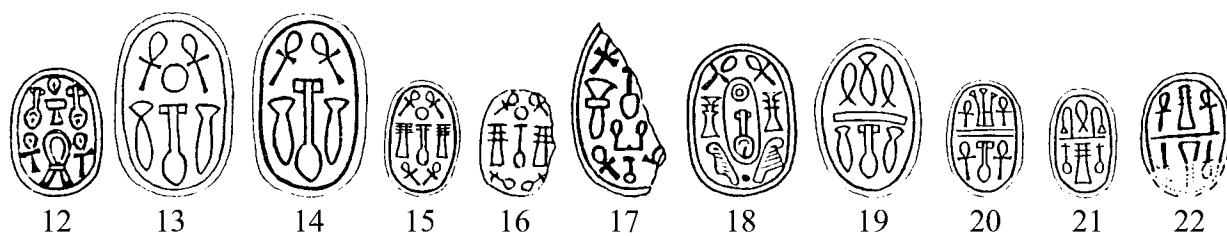
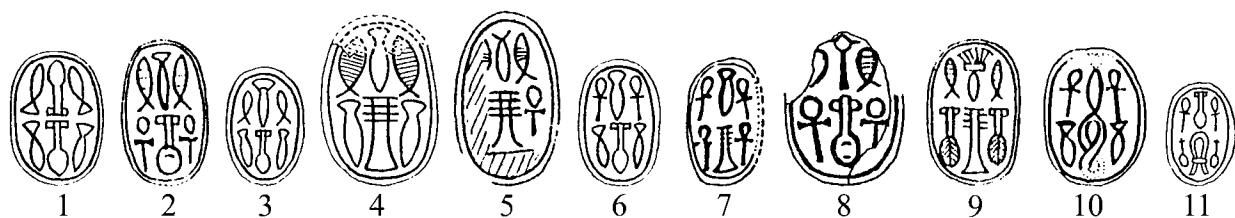


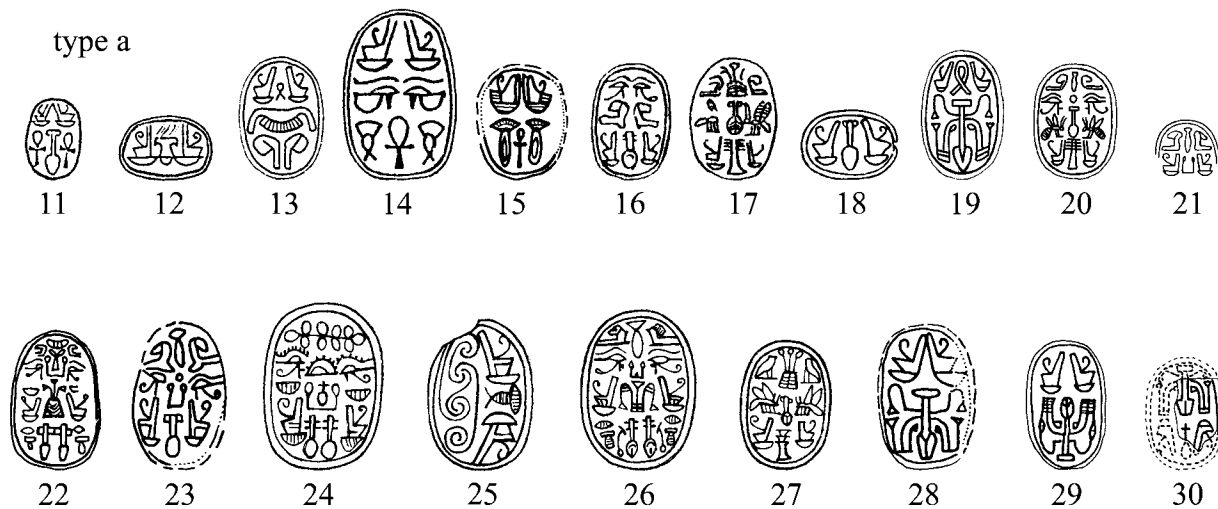
Plate 8

1. Tufnell 1975: Fig. 5: 245
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3. Tufnell 1975: Fig. 5: 247
4. Petrie and Quibell 1896: Pl. 80: 51
5. Petrie and Quibell 1896: Pl. 80: 61
6. Dunham 1967: Fig. 12: 32.1.189
7. Dunham 1967: Fig. 12: 32.1.187
8. Von Pilgrim 1996: Fig. 103: 202
9. MMA 15.3.234
10. MMA 22.1.432
11. Tufnell 1975: Fig. 5: 248
12. Tufnell 1975: Fig. 5: 249
13. Tufnell 1975: Fig. 5: 250
14. Petrie, Brunton and Murray 1923: Pl. 65: 271
15. Von Pilgrim 1996: Fig. 102: 123
16. Petrie 1891: Pl. 9: 58
17. Petrie, Brunton and Murray 1923: Pl. 64: 276
18. Engelbach 1923: Pl. 20: 7
19. Reisner 1955: Fig. 11: 274
20. Reisner 1955: Fig. 17: 457
21. Dunham 1967: Fig. 11: 32.1.145
22. Von Pilgrim 1996: Fig. 103: 29
23. Von Pilgrim 1996: Fig. 103: 94
24. MMA 20.1.98
25. MMA 20.1.115
26. MMA 22.1.313
27. MMA 22.1.366
28. Von Pilgrim 1996: Fig. 101: 20
29. Von Pilgrim 1996: Fig. 101: 210
30. Reisner 1955: Fig. 11: 279
31. Tufnell 1975: Fig. 5: 251
32. Tufnell 1975: Fig. 5: 252
33. Tufnell 1975: Fig. 5: 253
34. Tufnell 1975: Fig. 5: 274
35. Tufnell 1975: Fig. 5: 275
36. Reisner 1955: Fig. 7: 119
37. Reisner 1955: Fig. 7: 120
38. Reisner 1955: Fig. 15: 394
39. Reisner 1955: Fig. 15: 395
40. Reisner 1955: Fig. 15: 405
41. Tufnell 1975: Fig. 5: 256
42. Tufnell 1975: Fig. 5: 257
43. Tufnell 1975: Fig. 5: 258
44. Tufnell 1975: Fig. 5: 259
45. Tufnell 1975: Fig. 5: 260
46. Tufnell 1975: Fig. 5: 261
47. Tufnell 1975: Fig. 5: 262
48. Tufnell 1975: Fig. 5: 263
49. Von Pilgrim 1996: Fig. 103: 170
50. Von Pilgrim 1996: Fig. 103: 213
51. Gratien 2001: Fig. 12: 5A-161
52. Tufnell 1975: Fig. 5: 264
53. Tufnell 1975: Fig. 5: 265
54. Tufnell 1975: Fig. 5: 266
55. Tufnell 1975: Fig. 5: 267

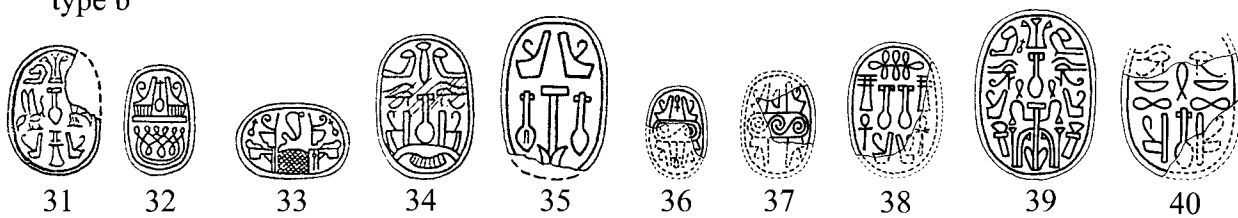


Design class 3b3 - red crowns

type a



type b



type c



type e

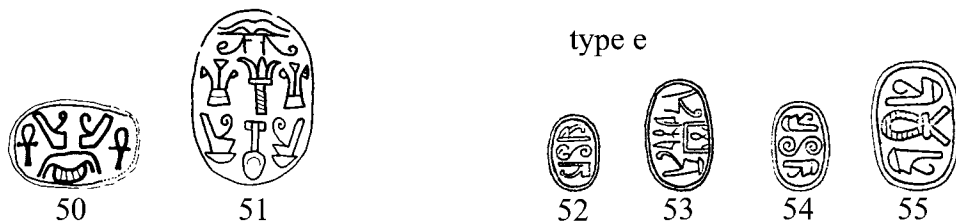


Plate 9

1. Tufnell 1975: Fig. 6: 268
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10. Tufnell 1975: Fig. 6: 277
11. Tufnell 1975: Fig. 6: 278
12. Tufnell 1975: Fig. 6: 280
13. Tufnell 1975: Fig. 6: 281
14. Tufnell 1975: Fig. 6: 281A
15. Reisner 1955: Fig. 15: 395
16. Reisner 1955: Fig. 15: 296
17. Reisner 1955: Fig. 15: 397
18. Reisner 1955: Fig. 15: 408
19. Petrie and Quibell 1896: Pl. 80: 46
20. Petrie and Quibell 1896: Pl. 80: 47
21. Petrie and Quibell 1896: Pl. 80: 50
22. Petrie and Quibell 1896: Pl. 80: 61
23. Engelbach 1923: Pl. 20: 62
24. Von Pilgrim 1996: Fig. 103: 29
25. Von Pilgrim 1996: Fig. 103: 45
26. Von Pilgrim 1996: Fig. 103: 94
27. Von Pilgrim 1996: Fig. 103: 246
28. Von Pilgrim 1996: Fig. 103: 336
29. Von Pilgrim 1996: Fig. 104: 124
30. Von Pilgrim 1996: Fig. 104: 259
31. Dunham 1967: Fig. 12: 32.1.187
32. Gratien 2001: Fig. 4: 5D-54
33. Gratien 2001: Fig. 12: 5A-161
34. Gratien 2001: Fig. 12: 5C-137
35. MMA 09.180.969
36. MMA 15.3.234
37. MMA 20.1.23
38. MMA 20.1.98
39. MMA 22.1.313
40. MMA 22.1.488

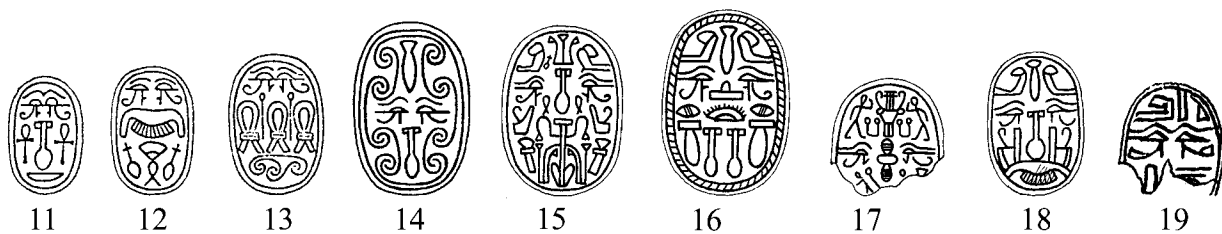
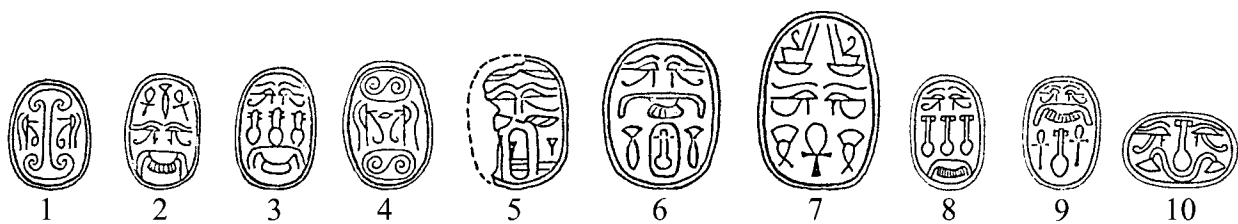
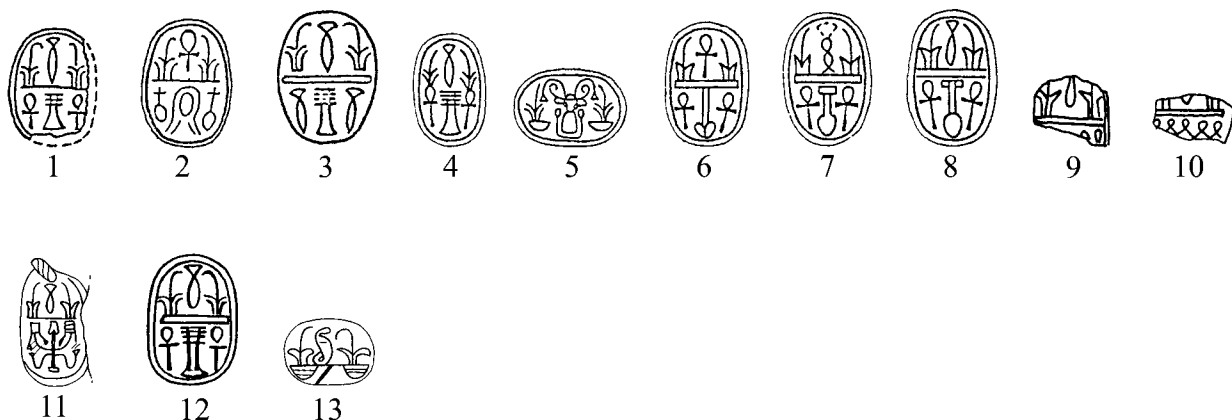


Plate 10

1. Tufnell 1975: Fig. 6: 282
2. Tufnell 1975: Fig. 6: 283
3. Tufnell 1975: Fig. 6: 284
4. Tufnell 1975: Fig. 6: 285
5. Tufnell 1975: Fig. 6: 286
6. Tufnell 1975: Fig. 6: 287
7. Tufnell 1975: Fig. 6: 288
8. Tufnell 1975: Fig. 6: 289
9. Von Pilgrim 1996: Fig. 103: 101
10. Von Pilgrim 1996: Fig. 103: 328
11. Gratien 2001: Fig. 2: 5F-49
12. MMA 22.1.350
13. Gratien 2001: Fig. 12: 5C-162
14. Petrie 1890: Pl. 10: 33
15. Petrie 1891: Pl. 9: 41
16. Petrie 1891: Pl. 9: 42
17. Petrie 1891: Pl. 9: 44
18. Petrie 1891: Pl. 9: 49
19. Petrie 1890: Pl. 9: 50
20. Petrie 1890: Pl. 9: 51
21. Petrie 1890: Pl. 9: 52
22. Petrie 1890: Pl. 9: 53
23. Petrie 1890: Pl. 9: 55
24. Petrie, Brunton and Murray 1923: Pl. 64: 294
25. Petrie, Brunton and Murray 1923: Pl. 64: 298
26. Petrie, Brunton and Murray 1923: Pl. 64: 299
27. Petrie, Brunton and Murray 1923: Pl. 64: 300
28. Petrie, Brunton and Murray 1923: Pl. 65: 335
29. Reisner 1955: Fig. 10: 252
30. Reisner 1955: Fig. 10: 253
31. Reisner 1955: Fig. 10: 254
32. Reisner 1955: Fig. 10: 255
33. Reisner 1955: Fig. 10: 256
34. Reisner 1955: Fig. 10: 257
35. Reisner 1955: Fig. 10: 258
36. Reisner 1955: Fig. 11: 259
37. Reisner 1955: Fig. 11: 260
38. Reisner 1955: Fig. 11: 261
39. Reisner 1955: Fig. 11: 262
40. Reisner 1955: Fig. 11: 263
41. Reisner 1955: Fig. 11: 264
42. Reisner 1955: Fig. 11: 265
43. Reisner 1955: Fig. 11: 268
44. Von Pilgrim 1996: Fig. 103: 15
45. Von Pilgrim 1996: Fig. 103: 16
46. Von Pilgrim 1996: Fig. 103: 153
47. Von Pilgrim 1996: Fig. 104: 159
48. Von Pilgrim 1996: Fig. 104: 164



Design class 3B6 - gold sign (*nbw*) in longitudinal setting

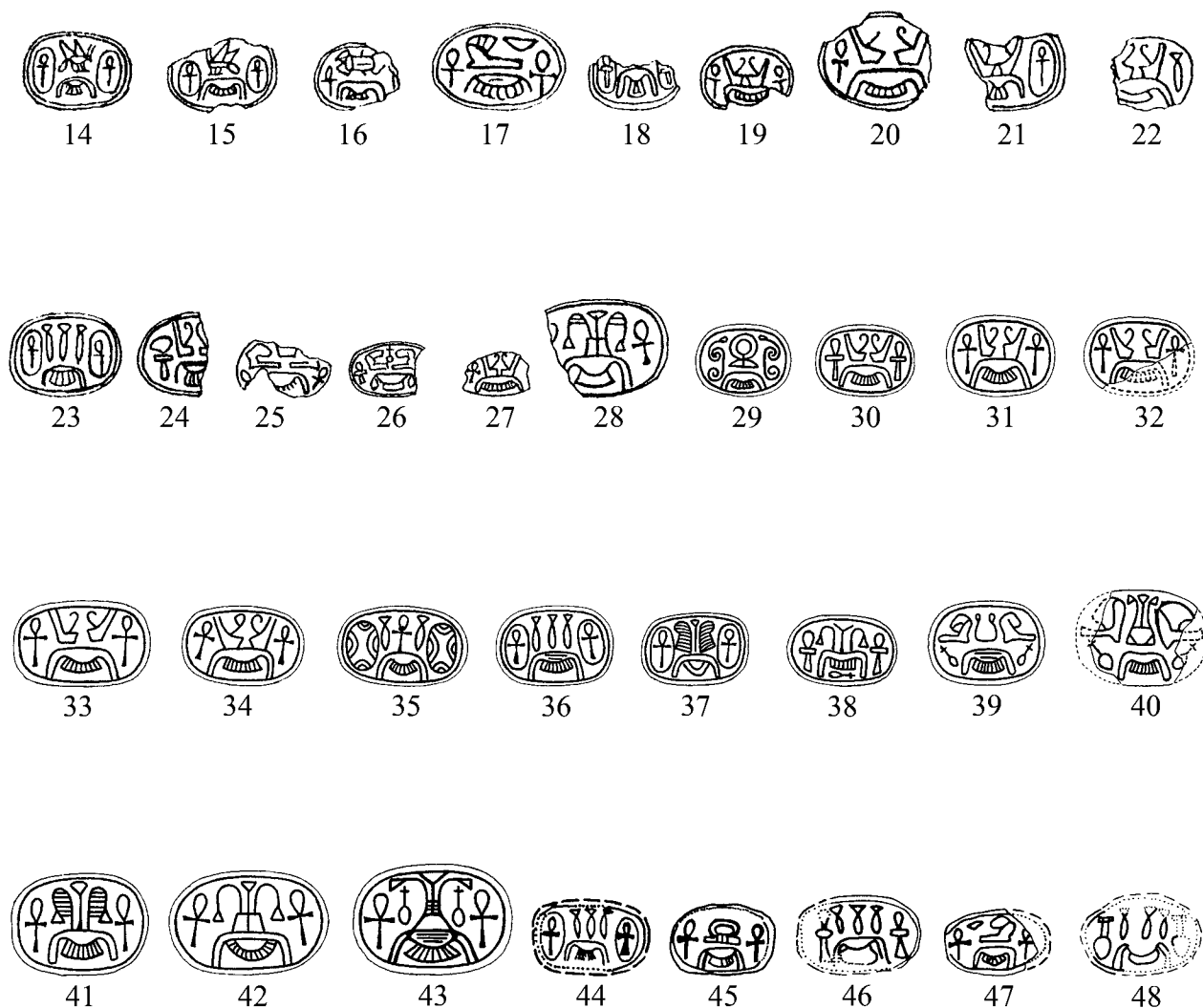
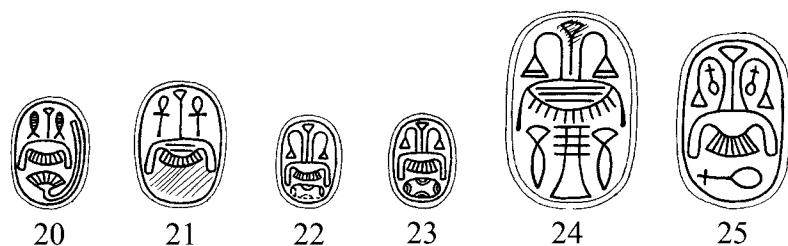


Plate 11

1. Von Pilgrim 1996: Fig. 104: 166
2. Von Pilgrim 1996: Fig. 103: 170
3. Von Pilgrim 1996: Fig. 104: 179
4. Von Pilgrim 1996: Fig. 104: 186
5. Von Pilgrim 1996: Fig. 103: 213
6. Gratien 2001: Fig. 7: 5A-143
7. Petrie 1891: Pl. 8: 49
8. Reisner 1955: Fig. 10: 234
9. Reisner 1955: Fig. 10: 235
10. Reisner 1955: Fig. 10: 236
11. Reisner 1955: Fig. 10: 237
12. Reisner 1955: Fig. 10: 238
13. Reisner 1955: Fig. 10: 239
14. Reisner 1955: Fig. 10: 240
15. Reisner 1955: Fig. 10: 241
16. Reisner 1955: Fig. 10: 242
17. Reisner 1955: Fig. 10: 243
18. Reisner 1955: Fig. 10: 244
19. Reisner 1955: Fig. 10: 245
20. Reisner 1955: Fig. 10: 246
21. Reisner 1955: Fig. 10: 247
22. Reisner 1955: Fig. 10: 248
23. Reisner 1955: Fig. 10: 249
24. Reisner 1955: Fig. 10: 250
25. Reisner 1955: Fig. 10: 251
26. Petrie 1891: Pl. 9: 58
27. Petrie 1891: Pl. 9: 59
28. Petrie, Brunton and Murray 1923: Pl. 64: 248
29. Petrie, Brunton and Murray 1923: Pl. 64: 267
30. Petrie, Brunton and Murray 1923: Pl. 64: 268
31. Petrie, Brunton and Murray 1923: Pl. 64: 276
32. Petrie, Brunton and Murray 1923: Pl. 64: 278
33. Petrie, Brunton and Murray 1923: Pl. 65: 343
34. Reisner 1955: Fig. 15: 395
35. Reisner 1955: Fig. 15: 396
36. Reisner 1955: Fig. 55: 402
37. Reisner 1955: Fig. 15: 408
38. Petrie and Quibell 1896: Pl. 80: 46
39. Petrie and Quibell 1896: Pl. 80: 47
40. Dunham 1967: Fig. 11: 32.1.145
41. Gratien 2001: Fig. 2: 5C-119
42. Gratien 2001: Fig. 12: 5C-137
43. Von Pilgrim 1996: Fig. 103: 29
44. Von Pilgrim 1996: Fig. 103: 94
45. MMA 15.3.234
46. MMA 22.1.313
47. Petrie 1890: Pl. 10: 31
48. Von Pilgrim 1996: Fig. 104: 72
49. Von Pilgrim 1996: Fig. 104: 92
50. Reisner 1955: Fig. 11: 262
51. Reisner 1955: Fig. 11: 263



Design class 3B7 - forepart of lion (*h3t*)

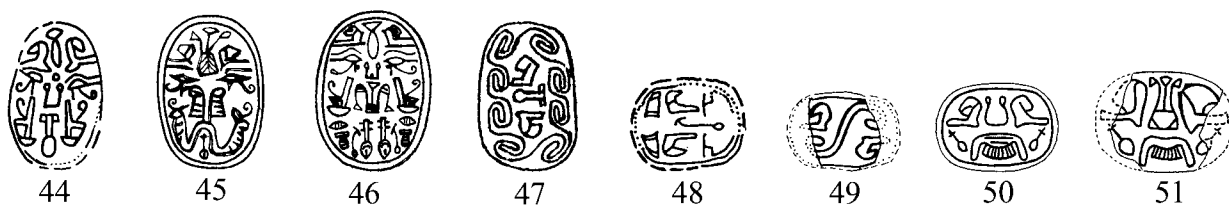
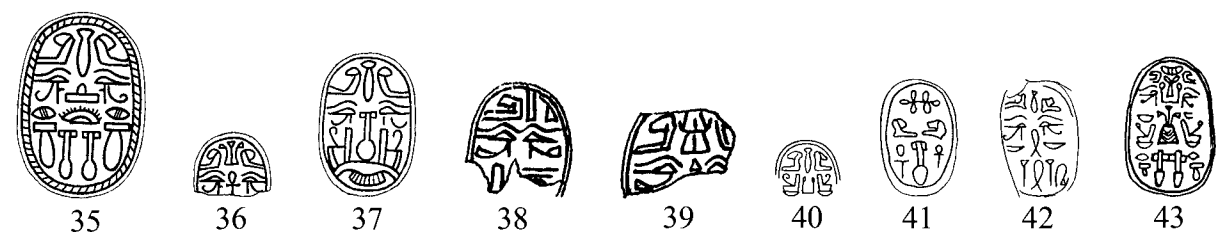
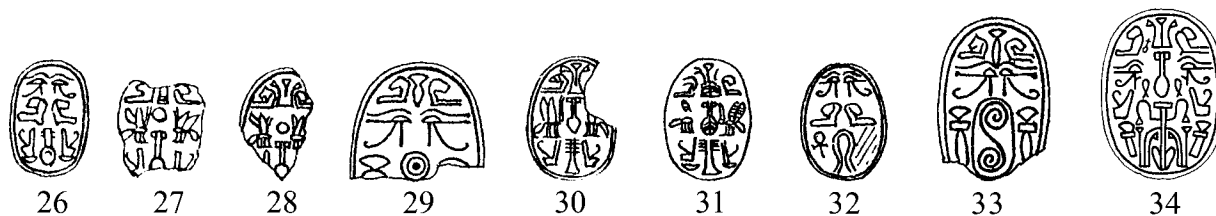
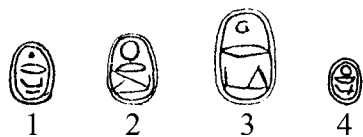
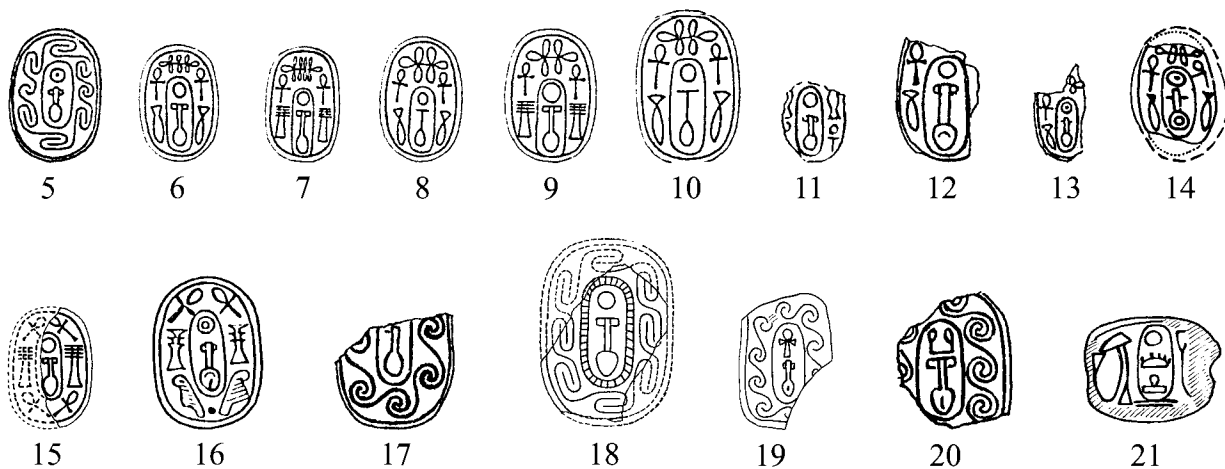


Plate 12

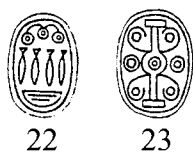
1. Petrie 1890: Pl. 10: 63
2. Petrie 1891: Pl. 8: 43
3. Petrie 1891: Pl. 8: 44
4. Engelbach 1923: Pl. 20: 12A
5. Tufnell 1975: Fig. 6: 307
6. Tufnell 1975: Fig. 6: 308
7. Tufnell 1975: Fig. 6: 309
8. Tufnell 1975: Fig. 6: 310
9. Tufnell 1975: Fig. 6: 311
10. Tufnell 1975: Fig. 6: 312
11. Petrie 1891: Pl. 9: 3
12. Petrie, Brunton and Murray 1923: Pl. 64: 244
13. Petrie, Brunton and Murray 1923: Pl. 64: 246
14. Von Pilgrim 1996: Fig. 103: 36
15. Reisner 1955: Fig. 15: 379
16. MMA 22.1.342
17. Petrie, Brunton and Murray 1923: Pl. 64: 241
18. Dunham 1967: Fig. 12: 32.1.135
19. Gratien 2001: Fig. 5: 7B-31
20. Petrie and Quibell 1896: Pl. 80: 63
21. MMA 22.1.357
22. Tufnell 1975: Fig. 7: 319
23. Tufnell 1975: Fig. 7: 320
24. Tufnell 1975: Fig. 7: 323
25. Tufnell 1975: Fig. 7: 324
26. Tufnell 1975: Fig. 7: 325
27. Tufnell 1975: Fig. 7: 326
28. Tufnell 1975: Fig. 7: 327
29. Tufnell 1975: Fig. 7: 328
30. Tufnell 1975: Fig. 7: 329
31. Tufnell 1975: Fig. 7: 330
32. Tufnell 1975: Fig. 7: 331
33. Tufnell 1975: Fig. 7: 332
34. Tufnell 1975: Fig. 7: 333
35. Tufnell 1975: Fig. 7: 334
36. Tufnell 1975: Fig. 7: 335
37. Tufnell 1975: Fig. 7: 336
38. Tufnell 1975: Fig. 7: 337
39. Von Pilgrim 1996: Fig. 101: 9
40. Von Pilgrim 1996: Fig. 101: 24
41. Von Pilgrim 1996: Fig. 101: 97
42. Von Pilgrim 1996: Fig. 101: 197
43. Von Pilgrim 1996: Fig. 100: 234
44. Von Pilgrim 1996: Fig. 101: 235
45. Von Pilgrim 1996: Fig. 101: 239
46. Von Pilgrim 1996: Fig. 101: 335
47. Gratien 2001: Fig. 5: 8A-30
48. MMA 20.1.27
49. MMA 22.1.457



Design class 3D - cartouches



Design class 4 - concentric circles



Design class 5 - cross patterns



Plate 13

1. Petrie, Brunton and Murray 1923: Pl. 65: 331
2. Petrie, Brunton and Murray 1923: Pl. 65: 417
3. Petrie, Brunton and Murray 1923: Pl. 65: 425
4. Tufnell 1975: Fig. 8: 338
5. Tufnell 1975: Fig. 8: 339
6. Reisner 1955: Fig. 11: 280
7. Reisner 1955: Fig. 12: 315
8. Reisner 1955: Fig. 13: 318
9. Tufnell 1975: Fig. 8: 340
10. Tufnell 1975: Fig. 8: 341
11. Tufnell 1975: Fig. 8: 343
12. Tufnell 1975: Fig. 8: 344
13. Tufnell 1975: Fig. 8: 345
14. Tufnell 1975: Fig. 8: 346
15. Tufnell 1975: Fig. 8: 347
16. Von Pilgrim 1996: Fig. 100: 31
17. Von Pilgrim 1996: Fig. 100: 33
18. Von Pilgrim 1996: Fig. 100: 171
19. Von Pilgrim 1996: Fig. 103: 328
20. Gratien 2001: Fig. 3: 9A-1
21. Gratien 2001: Fig. 5: 9A-2
22. MMA 32.1.216
23. Reisner 1955: Fig. 13: 319
24. Von Pilgrim 1996: Fig. 103: 241
25. Petrie 1891: Pl. 10: 185
26. Petrie, Brunton and Murray 1923: Pl. 65: 419
27. Petrie, Brunton and Murray 1923: Pl. 65: 420
28. Petrie, Brunton and Murray 1923: Pl. 65: 421
29. Petrie, Brunton and Murray 1923: Pl. 65: 422
30. Reisner 1955: Fig. 9: 220
31. Reisner 1955: Fig. 9: 221
32. Reisner 1955: Fig. 10: 222
33. Reisner 1955: Fig. 10: 223
34. Reisner 1955: Fig. 10: 224
35. Reisner 1955: Fig. 10: 225
36. Reisner 1955: Fig. 10: 227
37. Reisner 1955: Fig. 10: 228
38. Reisner 1955: Fig. 10: 229
39. Reisner 1955: Fig. 10: 230
40. Von Pilgrim 1996: Fig. 104: 11
41. Von Pilgrim 1996: Fig. 104: 200
42. Von Pilgrim 1996: Fig. 104: 250
43. Von Pilgrim 1996: Fig. 104: 327
44. Von Pilgrim 1996: Fig. 105: 324
45. Von Pilgrim 1996: Fig. 105: 325
46. Gratien 2001: Fig. 2: 5H-33
47. Gratien 2001: Fig. 3: 5H-29
48. Gratien 2001: Fig. 3: 5H-30
49. Gratien 2001: Fig. 12: 5H-36
50. MMA 15.3.409
51. MMA 22.1.330
52. Engelbach 1923: Pl. 20: 90
53. Petrie and Quibell 1896: Pl. 81: 98



Design class 6A2 - single line loops

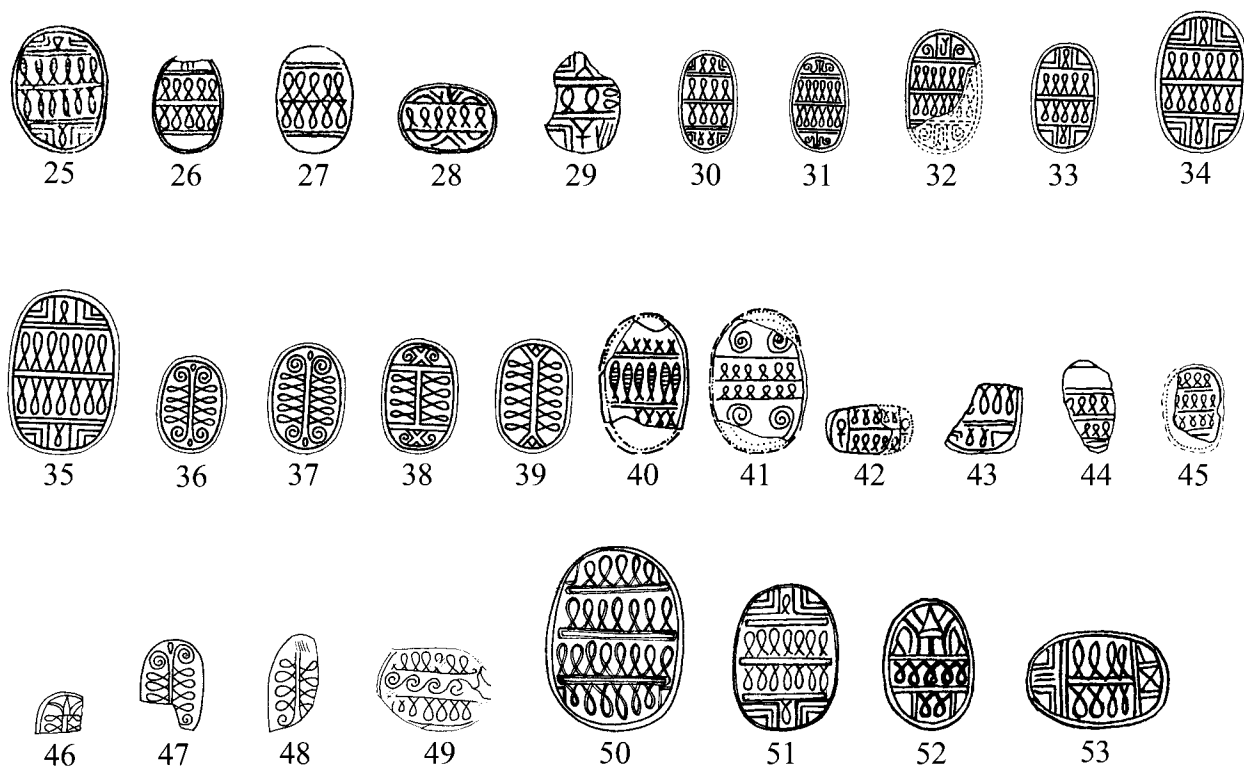
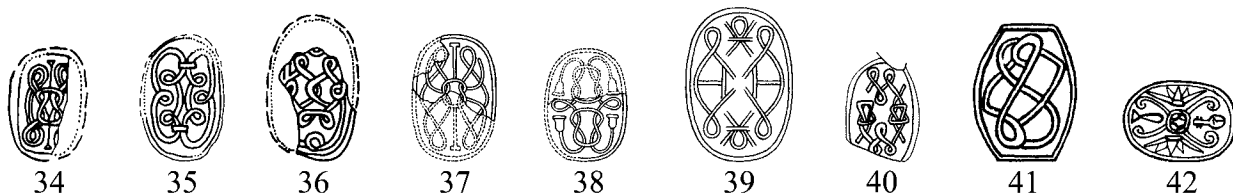
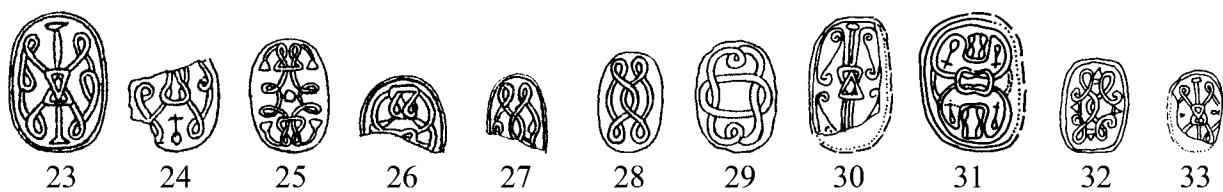
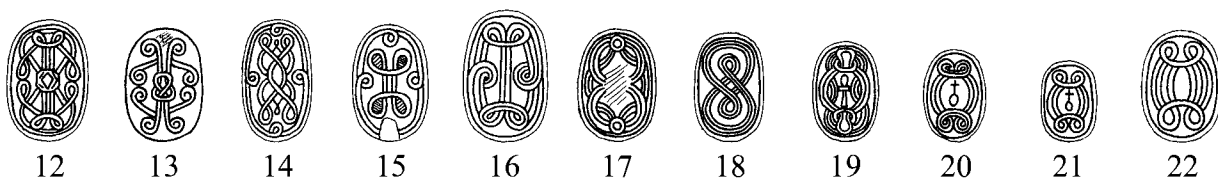
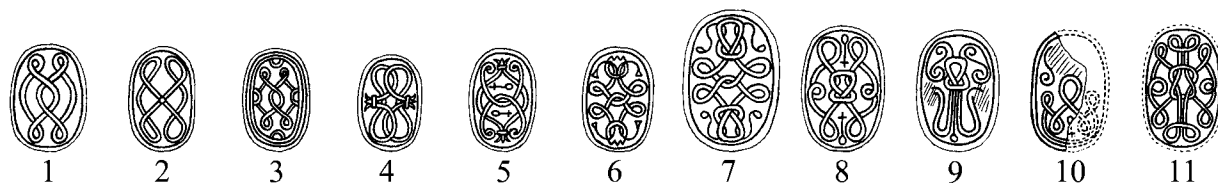


Plate 14

1. Reisner 1955: Fig. 8: 175
2. Reisner 1955: Fig. 8: 176
3. Reisner 1955: Fig. 8: 177
4. Reisner 1955: Fig. 8: 178
5. Reisner 1955: Fig. 8: 179
6. Reisner 1955: Fig. 8: 180
7. Reisner 1955: Fig. 8: 181
8. Reisner 1955: Fig. 8: 182
9. Reisner 1955: Fig. 8: 184
10. Reisner 1955: Fig. 9: 185
11. Reisner 1955: Fig. 9: 186
12. Reisner 1955: Fig. 9: 187
13. Reisner 1955: Fig. 9: 188
14. Reisner 1955: Fig. 9: 189
15. Reisner 1955: Fig. 9: 190
16. Reisner 1955: Fig. 9: 192
17. Reisner 1955: Fig. 9: 194
18. Reisner 1955: Fig. 9: 195
19. Reisner 1955: Fig. 9: 196
20. Reisner 1955: Fig. 9: 197
21. Reisner 1955: Fig. 9: 198
22. Reisner 1955: Fig. 17: 451
23. Petrie 1891: Pl. 8: 64
24. Petrie 1891: Pl. 10: 161
25. Petrie, Brunton and Murray 1923: Pl. 65: 411
26. Petrie, Brunton and Murray 1923: Pl. 65: 412
27. Petrie, Brunton and Murray 1923: Pl. 65: 413
28. Petrie, Brunton and Murray 1923: Pl. 65: 414
29. Petrie, Brunton and Murray 1923: Pl. 65: 415
30. Von Pilgrim 1996: Fig. 102: 10
31. Von Pilgrim 1996: Fig. 102: 122
32. Von Pilgrim 1996: Fig. 102: 138
33. Von Pilgrim 1996: Fig. 102: 175
34. Von Pilgrim 1996: Fig. 102: 188
35. Von Pilgrim 1996: Fig. 102: 201
36. Von Pilgrim 1996: Fig. 102: 233
37. Dunham 1967: Fig. 12: 32.1.60
38. Dunham 1967: Fig. 12: 32.1.79
39. Dunham 1967: Fig. 12: 32.1.113
40. Gratien 2001: Fig. 4: 9B-120
41. Engelbach 1923: Pl. 20: 92
42. MMA 22.1.457
43. Tufnell 1975: Fig. 8: 371
44. Petrie, Brunton and Murray 1923: Pl. 65: 423
45. Petrie, Brunton and Murray 1923: Pl. 65: 424
46. Engelbach 1923: Pl. 20: 91
47. Gratien 2001: Fig. 12: 9B-60
48. Von Pilgrim 1996: Fig. 102: 165
49. Von Pilgrim 1996: Fig. 102: 267



Design class 6B3 - convoluted coils, varia

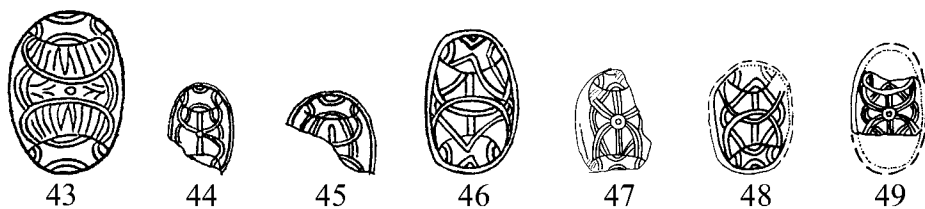
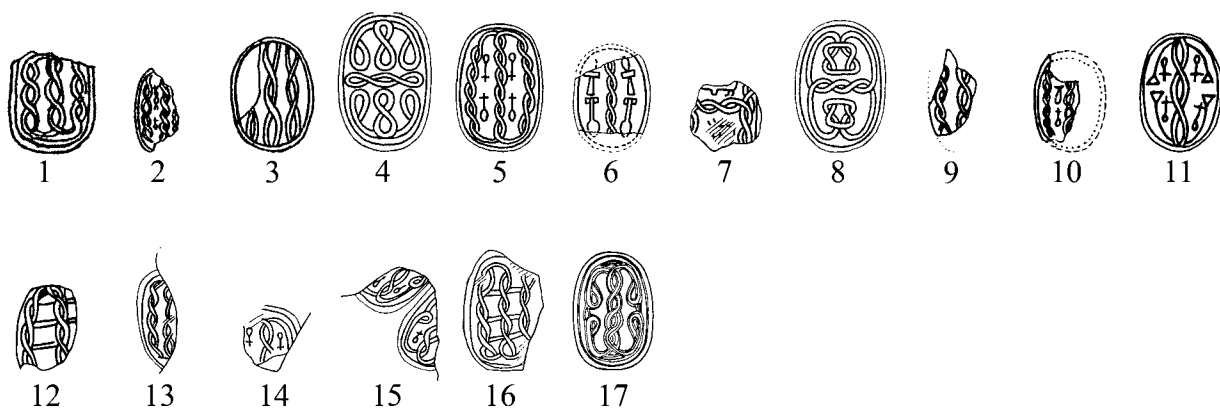
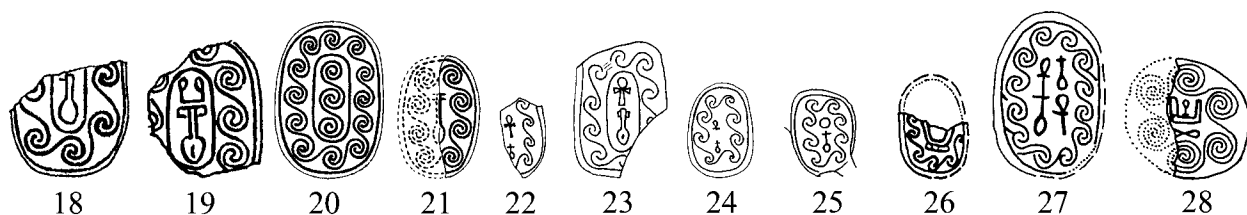


Plate 15

1. Petrie 1890: Pl. 10: 29
2. Petrie, Brunton and Murray 1923: Pl. 65: 372
3. Petrie, Brunton and Murray 1923: Pl. 65: 416
4. Reisner 1955: Fig. 9: 191
5. Reisner 1955: Fig. 9: 199
6. Reisner 1955: Fig. 9: 200
7. Reisner 1955: Fig. 9: 201
8. Reisner 1955: Fig. 17: 452
9. Von Pilgrim 1996: Fig. 102: 91
10. Von Pilgrim 1996: Fig. 102: 114
11. Von Pilgrim 1996: Fig. 102: 197
12. Von Pilgrim 1996: Fig. 102: 326
13. Gratien 2001: Fig. 2: 9B-3
14. Gratien 2001: Fig. 2: 9C-2
15. Gratien 2001: Fig. 2: 9C-10
16. Gratien 2001: Fig. 5: 9B-2
17. MMA 34.1.184
18. Petrie, Brunton and Murray 1923: Pl. 64: 241
19. Petrie and Quibell 1896: Pl. 80: 63
20. Reisner 1955: Fig. 5: 91
21. Reisner 1955: Fig. 8: 153
22. Gratien 2001: Fig. 5: 7B-25
23. Gratien 2001: Fig. 5: 7B-31
24. Gratien 2001: Fig. 5: 7C-103
25. Gratien 2001: Fig. 12: 7C-27
26. Von Pilgrim 1996: Fig. 100: 47
27. Von Pilgrim 1996: Fig. 100: 192
28. Von Pilgrim 1996: Fig. 100: 294
29. Petrie 1890: Pl. 10: 31
30. Petrie 1891: Pl. 8: 45
31. Petrie 1891: Pl. 10: 163
32. Petrie 1891: Pl. 10: 164
33. Petrie 1891: Pl. 10: 165
34. Petrie, Brunton and Murray 1923: Pl. 64: 240
35. Petrie, Brunton and Murray 1923: Pl. 64: 242
36. Petrie, Brunton and Murray 1923: Pl. 64: 243
37. Petrie, Brunton and Murray 1923: Pl. 64: 245
38. Petrie, Brunton and Murray 1923: Pl. 64: 250
39. Petrie, Brunton and Murray 1923: Pl. 64: 251
40. Petrie, Brunton and Murray 1923: Pl. 65: 354
41. Petrie, Brunton and Murray 1923: Pl. 65: 388
42. Reisner 1955: Fig. 7: 142
43. Reisner 1955: Fig. 7: 143
44. Reisner 1955: Fig. 7: 144
45. Reisner 1955: Fig. 7: 145
46. Reisner 1955: Fig. 7: 146
47. Reisner 1955: Fig. 7: 147
48. Reisner 1955: Fig. 7: 148
49. Reisner 1955: Fig. 7: 149
50. Reisner 1955: Fig. 8: 150
51. Reisner 1955: Fig. 8: 151
52. Reisner 1955: Fig. 8: 159
53. MMA 09.180.1227
54. MMA 20.1.24
55. MMA 20.1.29
56. MMA 22.1.164
57. MMA 22.1.336
58. Von Pilgrim 1996: Fig. 100: 43
59. Von Pilgrim 1996: Fig. 100: 87
60. Von Pilgrim 1996: Fig. 100: 350
61. Petrie and Quibell 1896: Pl. 80: 59



Design class 7A1 - continuous scroll border, round scrolls



Design class 7A2 - continuous scroll border, oblong scrolls

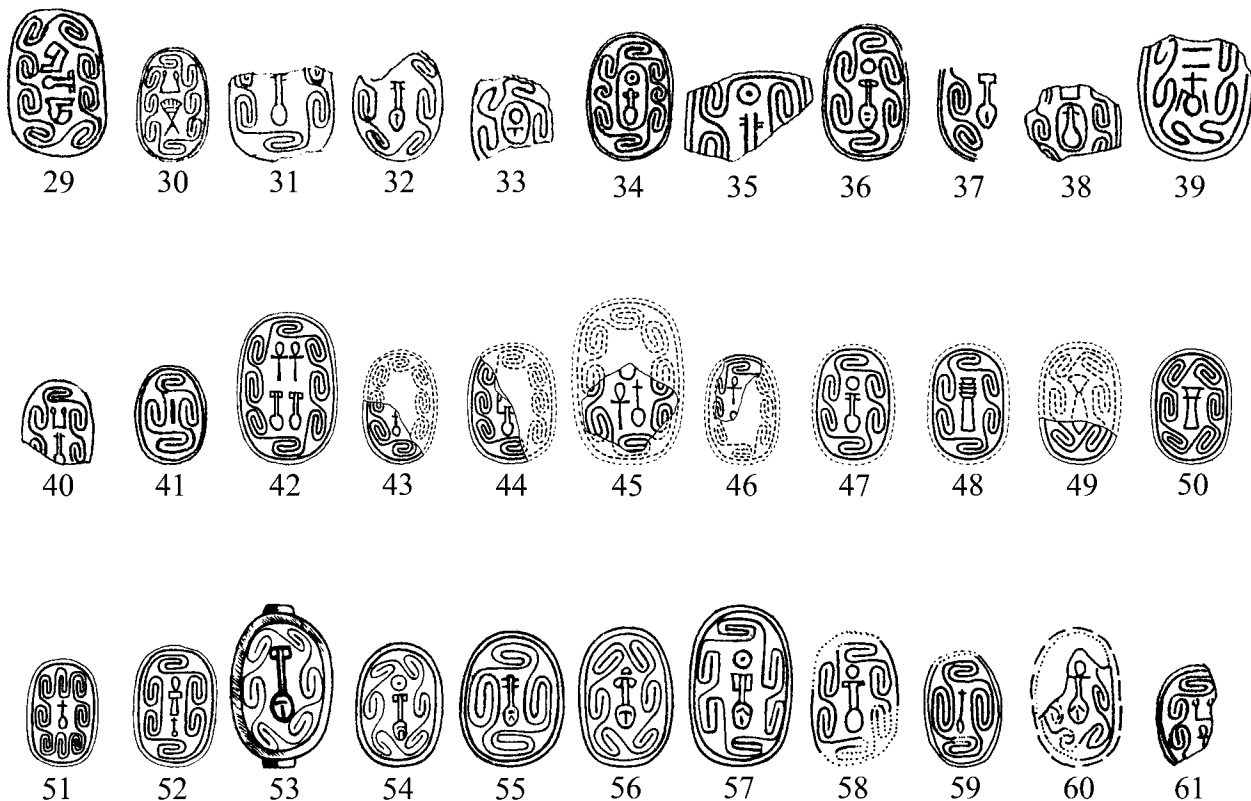
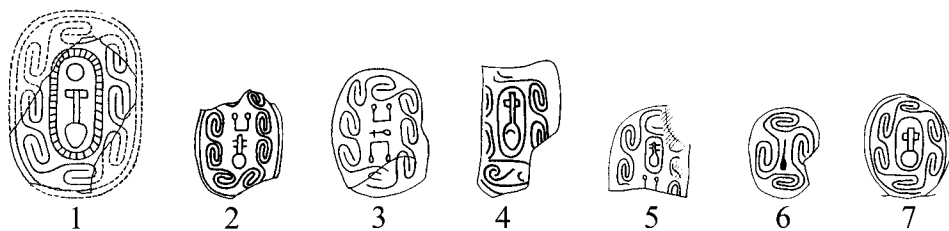


Plate 16

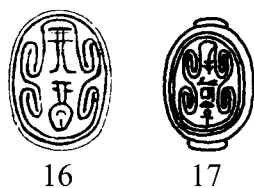
1. Dunham 1967: Fig. 12: 32.1.135
2. Gratien 2001: Fig. 3: 7A-35
3. Gratien 2001: Fig. 3: 7A-43
4. Gratien 2001: Fig. 3: 7C-76
5. Gratien 2001: Fig. 4: 7A-42
6. Gratien 2001: Fig. 7: 7C-53
7. Gratien 2001: Fig. 12: 7C-75
8. Petrie 1891: Pl. 8: 72
9. Petrie, Brunton and Murray 1923: Pl. 65: 346
10. Reisner 1955: Fig. 10: 235
11. Reisner 1955: Fig. 14: 355
12. Von Pilgrim 1996: Fig. 100: 154
13. Martin 1971: Pl. 3: 5
14. Martin 1971: Pl. 3: 6
15. Martin 1971: Pl. 3: 7
16. Brunton 1937: Pl. 69: 15
17. Martin 1971: Pl. 42B: 6
18. Martin 1971: Pl. 3: 18
19. Martin 1971: Pl. 3: 19
20. Martin 1971: Pl. 3: 20
21. MMA 22.1.430
22. Tufnell 1975: Fig. 10: 398
23. Petrie 1891: Pl. 9: 28
24. Petrie 1891: Pl. 9: 29
25. Petrie 1891: Pl. 9: 30
26. Petrie, Brunton and Murray 1923: Pl. 64: 234
27. Petrie, Brunton and Murray 1923: Pl. 64: 235
28. Petrie, Brunton and Murray 1923: Pl. 64: 236
29. Petrie, Brunton and Murray 1923: Pl. 64: 237
30. Reisner 1955: Fig. 2: 14
31. Reisner 1955: Fig. 2: 15
32. Reisner 1955: Fig. 2: 16
33. Reisner 1955: Fig. 2: 17
34. Reisner 1955: Fig. 2: 18
35. Reisner 1955: Fig. 3: 19
36. Reisner 1955: Fig. 3: 20
37. Reisner 1955: Fig. 3: 21
38. Reisner 1955: Fig. 3: 22
39. Reisner 1955: Fig. 3: 23
40. Reisner 1955: Fig. 3: 24
41. Reisner 1955: Fig. 3: 25
42. Reisner 1955: Fig. 3: 26



Design class 7B1 (ii) - paired scrolls, one pair, oblong



Design class 7B2 (ii) - paired scrolls, two pairs, oblong



Design class 7B3 (i) - paired scrolls, three pairs, round

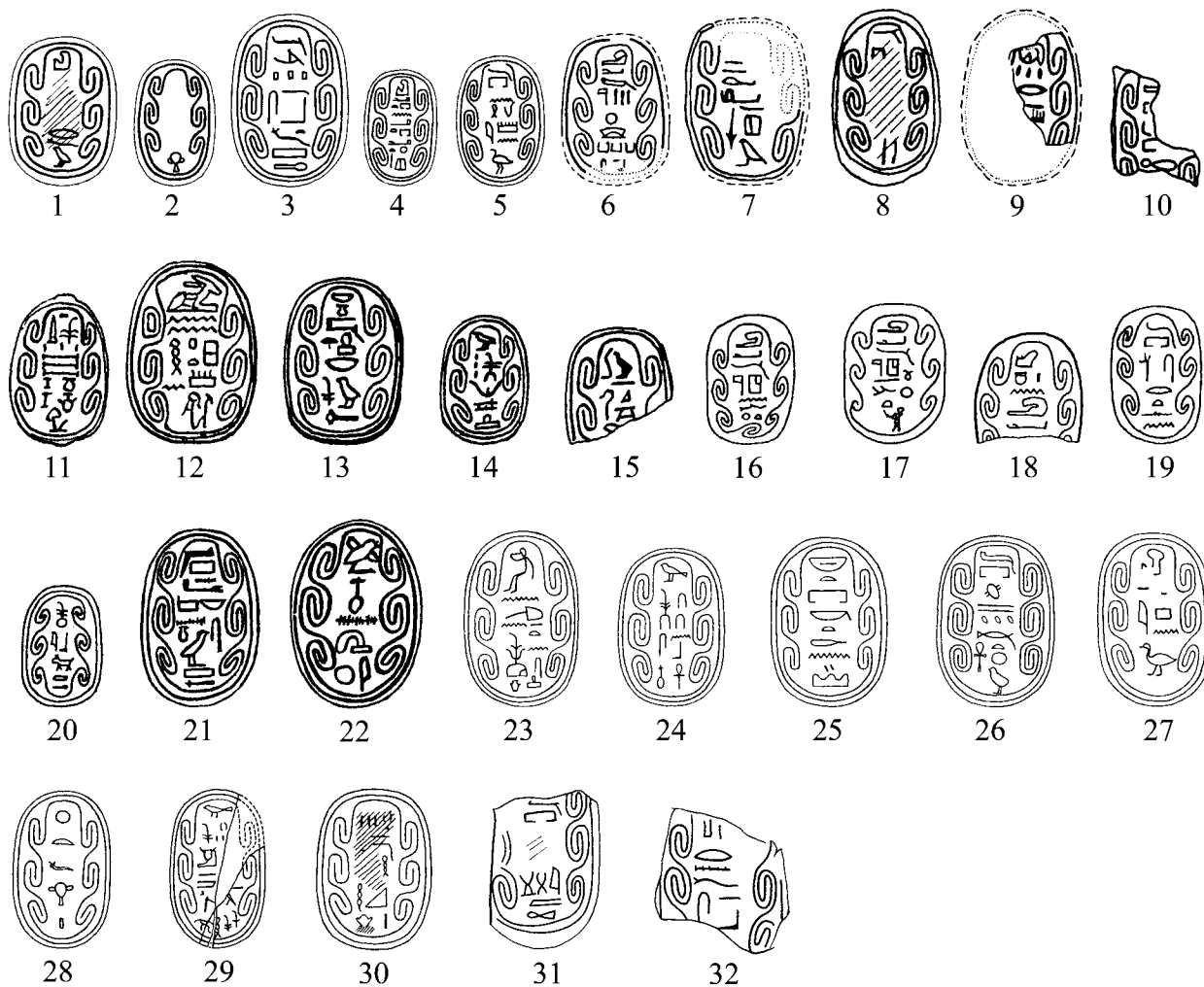


Design class 7B3 (ii) - paired scrolls, three pairs, oblong

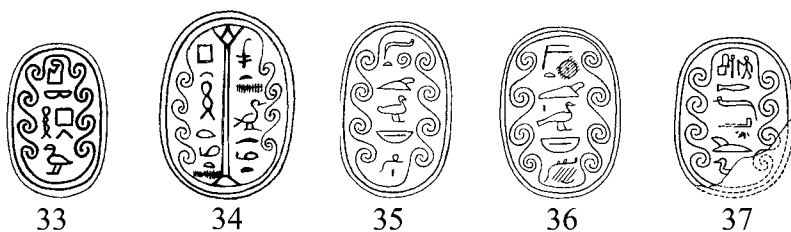


Plate 17

1. Reisner 1955: Fig. 3: 27
2. Reisner 1955: Fig. 3: 28
3. Reisner 1955: Fig. 17: 441
4. Reisner 1955: Fig. 17: 442
5. Reisner 1955: Fig. 17: 443
6. Von Pilgrim 1996: Fig. 98: 53
7. Von Pilgrim 1996: Fig. 98: 264
8. Von Pilgrim 1996: Fig. 98: 286
9. Von Pilgrim 1996: Fig. 98: 273
10. Von Pilgrim 1996: Fig. 98: 360
11. Petrie and Quibell 1896: Pl. 80: 7
12. Petrie and Quibell 1896: Pl. 80: 8
13. Petrie and Quibell 1896: Pl. 80: 15
14. Petrie and Quibell 1896: Pl. 80: 16
15. Petrie and Quibell 1896: Pl. 80: 17
16. Wegner 1998: Fig. 18: 2
17. Wegner 1998: Fig. 18: 3
18. Wegner 1998: Fig. 18: 6
19. Wegner 1998: Fig. 19: 2
20. Wegner 1998: Fig. 19: 4
21. Engelbach 1923: Pl. 20: 35
22. Engelbach 1923: Pl. 20: 42
23. Dunham 1967: Fig. 10: 32.1.176
24. Dunham 1967: Fig. 10: 32.1.178
25. Dunham 1967: Pl. 10: 32.1.177
26. Dunham 1967: Fig. 10: 32.1.131
27. Dunham 1967: Fig. 10: 32.1.179
28. Dunham 1967: Fig. 11: 32.1.167
29. Dunham 1967: Fig. 11: 32.1.140
30. Dunham 1967: Fig. 11: 32.1.138
31. Gratien 2001: Fig. 4: 3-106
32. Gratien 2001: Fig. 12: 3-263
33. Reisner 1955: Fig. 2: 12
34. MMA 09.180.1207
35. Dunham 1967: Fig. 10: 32.1.169
36. Dunham 1967: Fig. 10: 32.1.36B
37. Dunham 1967: Fig. 11: 32.1.136
38. Martin 1971: Pl. 16: 27



Design class 7B4 (i) - paired scrolls, four (or more) pairs, round

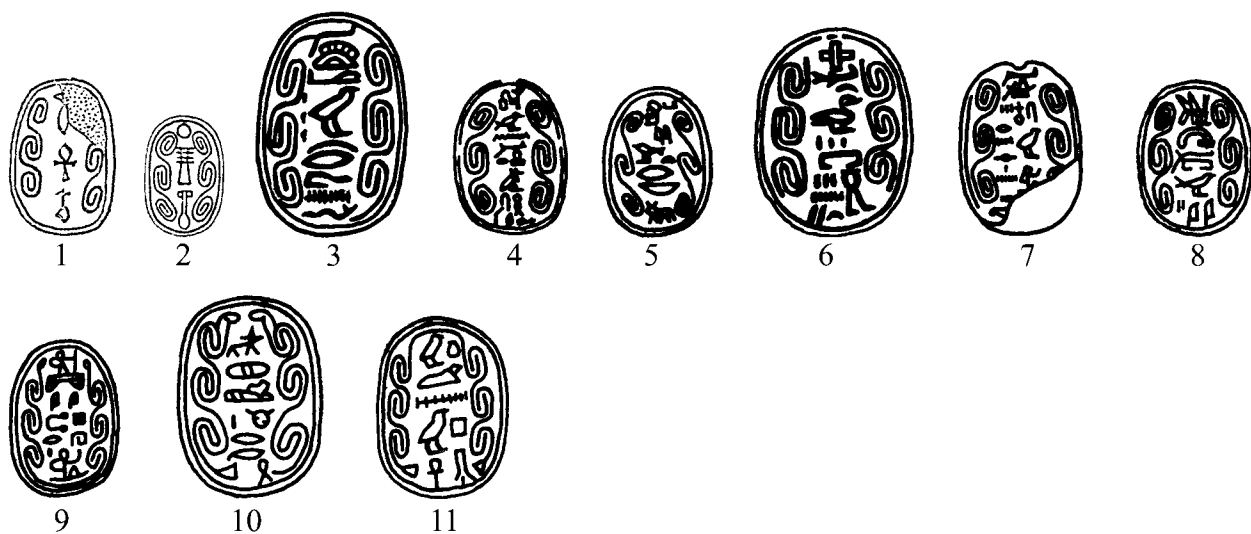


Design class 7B4 (ii) - paired scrolls, four (or more) pairs, oblong



Plate 18

1. Tufnell 1975: Fig. 10: 415
2. Tufnell 1975: Fig. 10: 416
3. Martin 1971: Pl. 11: 14
4. Martin 1971: Pl. 11: 15
5. Martin 1971: Pl. 11: 20
6. Martin 1971: Pl. 16: 18
7. Martin 1971: Pl. 16: 19
8. Martin 1971: Pl. 16: 20
9. Martin 1971: Pl. 11: 12
10. Martin 1971: Pl. 16: 21
11. Martin 1971: Pl. 11: 7
12. Petrie 1891: Pl. 10: 93
13. Petrie, Brunton and Murray 1923: Pl. 64: 238
14. Petrie 1890: Pl. 10: 18
15. Petrie 1891: Pl. 9: 26
16. Petrie 1891: Pl. 9: 27
17. Petrie, Brunton and Murray 1923: Pl. 64: 227
18. Petrie, Brunton and Murray 1923: Pl. 64: 228
19. Reisner 1955: Fig. 7: 139
20. Reisner 1955: Fig. 7: 140
21. Reisner 1955: Fig. 7: 141
22. Reisner 1955: Fig. 13: 346
23. Reisner 1955: Fig. 15: 396
24. Reisner 1955: Fig. 3: 34
25. Reisner 1955: Fig. 3: 35
26. Reisner 1955: Fig. 3: 36
27. Reisner 1955: Fig. 3: 37
28. Reisner 1955: Fig. 3: 38
29. Reisner 1955: Fig. 3: 39
30. Reisner 1955: Fig. 3: 40
31. Von Pilgrim 1996: Fig. 105: 319
32. Von Pilgrim 1996: Fig. 98: 56
33. MMA 22.1.359
34. MMA 09.180.936
35. MMA 09.180.1210
36. Petrie and Quibell 1896: Pl. 80: 23
37. Petrie and Quibell 1896: Pl. 80: 20
38. Petrie and Quibell 1896: Pl. 80: 21
39. Dunham 1967: Fig. 12: 32.1.187
40. Dunham 1967: Fig. 10: 32.1.186
41. Dunham 1967: Fig. 11: 32.1.54
42. Engelbach 1923: Pl. 20: 8
43. Engelbach 1923: Pl. 20: 88
44. Wegner 1998: Fig. 17: 3



Design class 8A - rope border, twisted strand

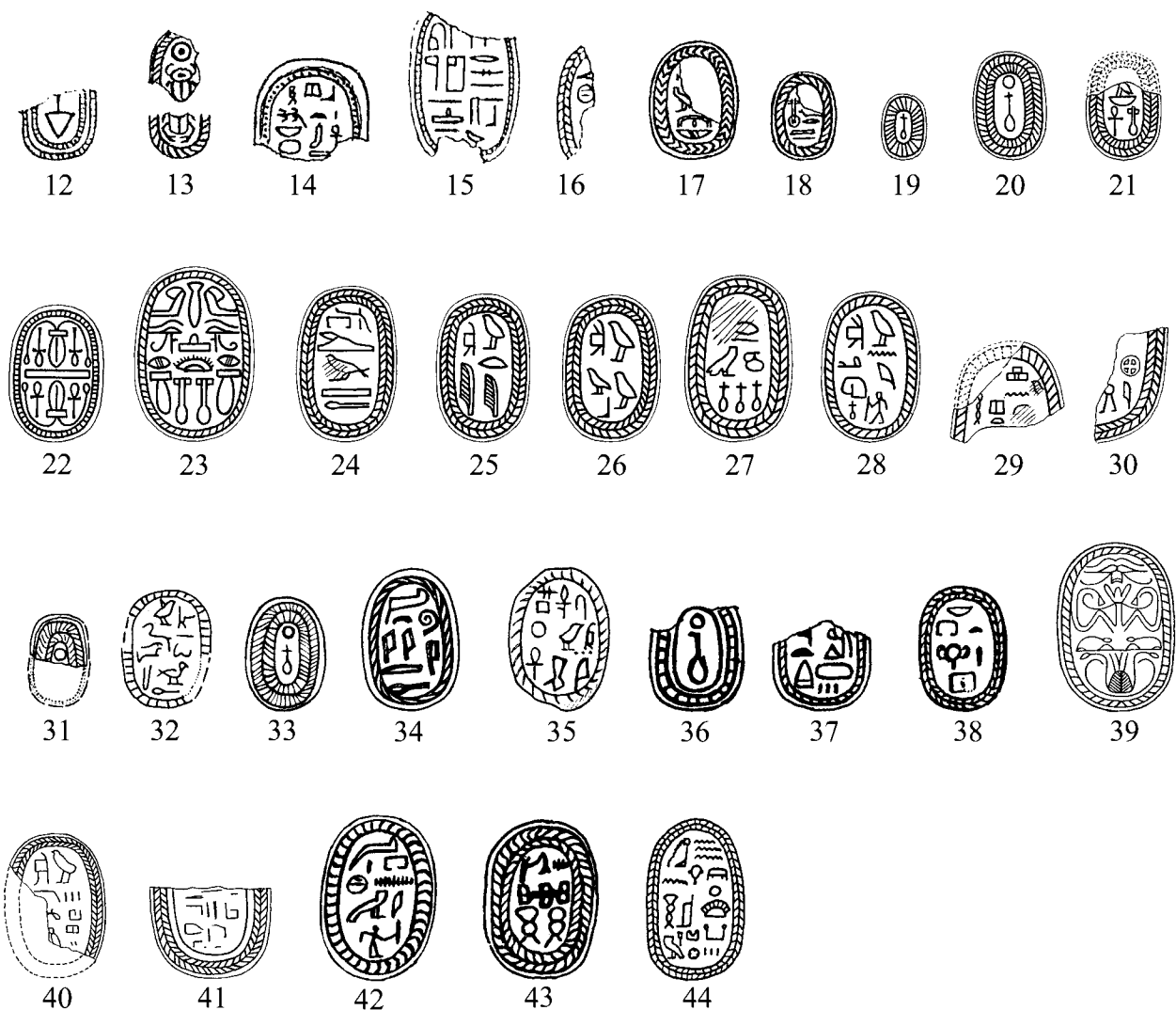
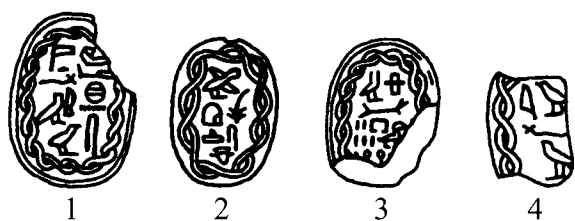


Plate 19

1. Martin 1971: Pl. 17: 1
2. Martin 1971: Pl. 17: 2
3. Martin 1971: Pl. 17: 7
4. Martin 1971: Pl. 17: 8
5. Tufnell 1975: Fig. 11: 430
6. Tufnell 1975: Fig. 11: 431
7. Reisner 1955: Fig. 16: 420
8. Reisner 1955: Fig. 16: 421
9. Reisner 1955: Fig. 16: 422
10. Reisner 1955: Fig. 16: 423
11. Newberry 1906: Fig. 93
12. Keel 1995a: Fig. 493
13. Keel 1989: 283, Fig. 5
14. Keel 1989: 283, Fig. 6
15. Keel 1989: 283, Fig. 7
16. Keel 1989: 283, Fig. 10
17. After Vercoutter 1975: 178, Fig. 71: 1 (drawing by Christa Mlinar)
18. Keel 1993a: 210, Fig. 7
19. Tufnell 1975: Fig. 11: 434
20. Tufnell 1975: Fig. 11: 435
21. Tufnell 1975: Fig. 11: 436
22. Tufnell 1975: Fig. 11: 437
23. Tufnell 1975: Fig. 11: 438
24. Reisner 1955: Fig. 15: 397
25. Dunham 1967: Fig. 12: 32.1.189
26. Von Pilgrim 1996: Fig. 103: 120
27. MMA 22.1.308
28. After Vercoutter 1975: Fig. 71:1 (drawing by Christa Mlinar)
29. Tufnell 1975: Fig. 11: 432
30. Tufnell 1975: Fig. 11: 433
31. Keel 1989: 285, Fig. 14
32. Keel 1989: 285, Fig. 16
33. MMA 15.3.62
34. IMJ 76.31.67
35. Ben-Tor 1988: 39, No. 11
36. Martin 1971: Pl. 41: 28
37. Martin 1971: Pl. 41: 29
38. Martin 1971: Pl. 41: 30
39. Martin 1971: Pl. 41: 31
40. Martin 1971: Pl. 41: 32
41. Martin 1971: Pl. 41: 33
42. Martin 1971: Pl. 41: 34



Design class 9 - animals and heraldic beasts



Design class 10 - human and mythical figures

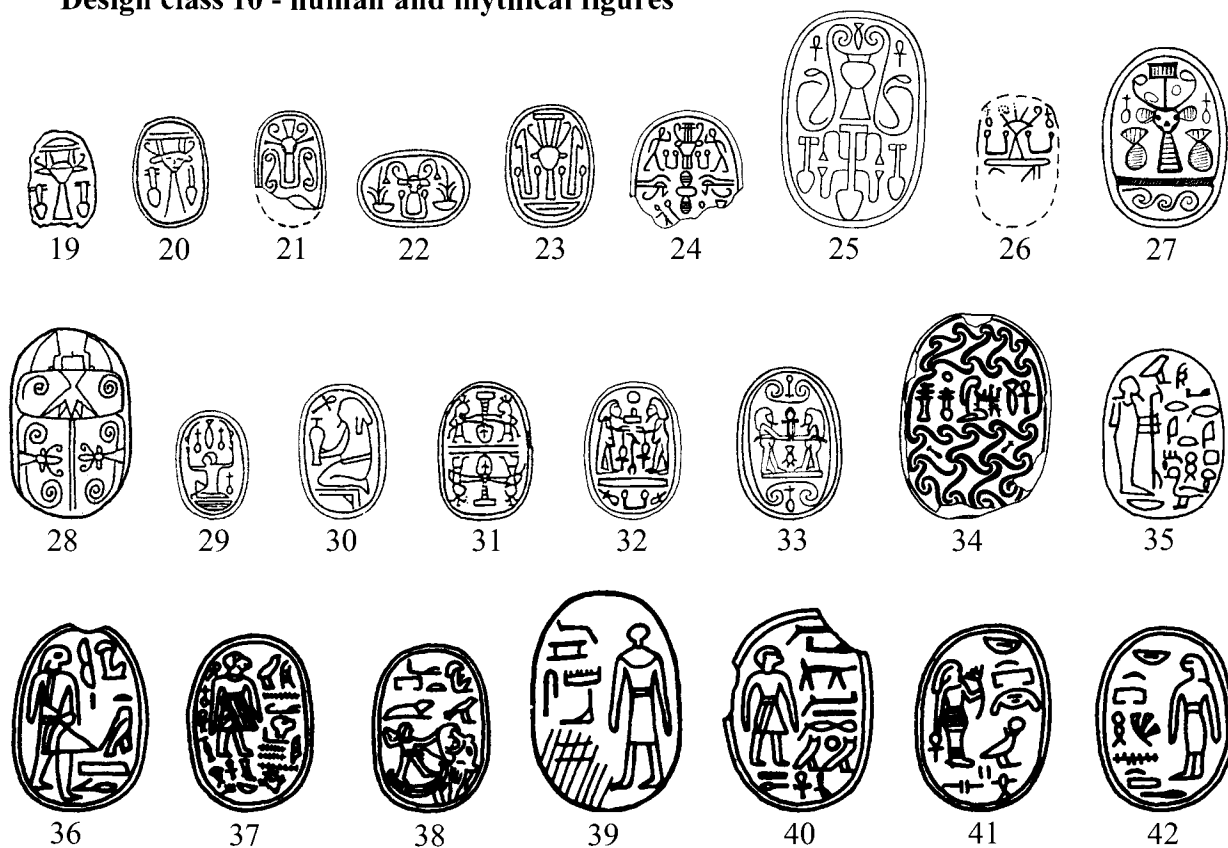


Plate 20

1. Martin 1971: Pl. 41: 35
2. Martin 1971: Pl. 41: 36
3. Martin 1971: Pl. 41: 37
4. Martin 1971: Pl. 42: 1
5. Martin 1971: Pl. 42: 2
6. IMJ 76.31.72
7. Keel 1995a: Fig. 494
8. After Keel 1996: Fig. 37a (drawing by Pnina Arad)
9. Keel 1995a: Fig. 496
10. Markowitz 1997: Fig. 3.9
11. Petrie, Brunton and Murray 1923: Pl. 64: 252
12. Keel 1995a: Fig. 492
13. Keel 1995a: Fig. 493
14. Tufnell 1984: Pl. 52: 3065
15. After Ben-Tor 2004b: Fig. 17 (drawing by Pnina Arad)
16. After Ben-Tor 2004b: Fig. 2 (drawing by Pnina Arad)
17. After Ben-Tor 2004b: Fig. 6 (drawing by Pnina Arad)
18. Tufnell 1984: Pl. 53: 3085
19. Newberry 1907: Pl. 18: 37411
20. Newberry 1907: Pl. 18: 37413
21. Tufnell 1975: Fig. 12: 439
22. Tufnell 1975: Fig. 12: 441
23. Tufnell 1984: Pl. 53: 3077
24. Tufnell 1984: Pl. 53: 3078
25. Tufnell 1984: Pl. 53: 3079
26. Tufnell 1984: Pl. 53: 3080
27. Tufnell 1984: Pl. 53: 3086
28. Tufnell 1984: Pl. 53: 3087
29. Newberry 1906: Fig. 93
30. Tufnell 1984: Pl. 53: 3072
31. Tufnell 1984: Pl. 53: 3073
32. Tufnell 1984: Pl. 53: 3074
33. Tufnell 1984: Pl. 53: 3075
34. Petrie 1901: Pl. 41: 9
35. Vila 1987: Pls. 7-8: 170/4
36. MMA 20.1.5
37. MMA 20.1.6
38. MMA 20.1.7
39. Tufnell 1984: Pl. 53: 3091
40. Tufnell 1984: Pl. 53: 3092
41. Tufnell 1984: Pl. 53: 3094
42. Tufnell 1984: Pl. 53: 3095

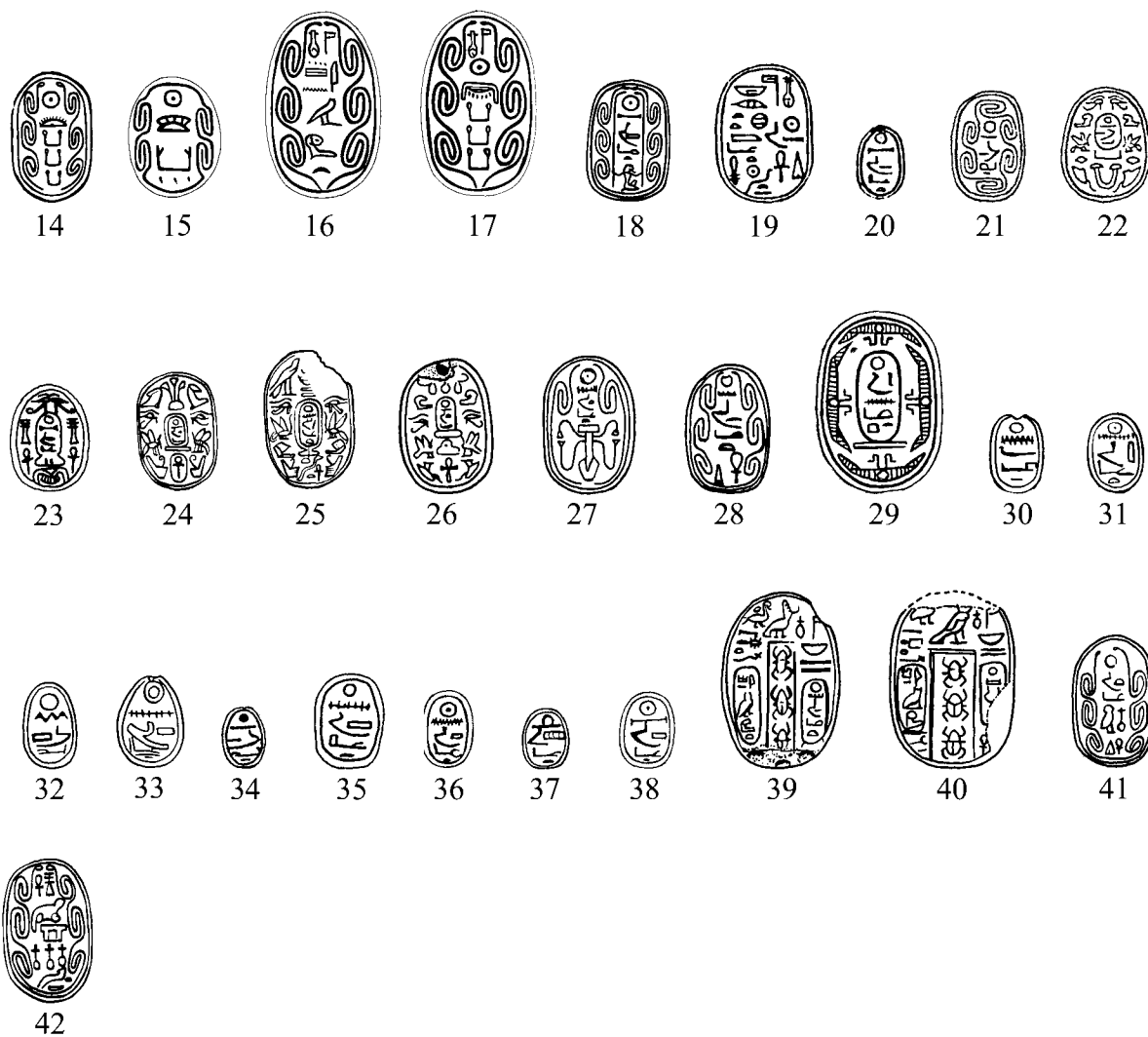
Scarabs bearing names of 12th Dynasty kings

Plate 21

1. Tufnell 1984: Pl. 54: 3108
2. Tufnell 1984: Pl. 54: 3116
3. Tufnell 1984: Pl. 54: 3124
4. Tufnell 1984: Pl. 54: 3127
5. Tufnell 1984: Pl. 54: 3136
6. Tufnell 1984: Pl. 54: 3139
7. Tufnell 1984: Pl. 55: 3150
8. Tufnell 1984: Pl. 55: 3157
9. Tufnell 1984: Pl. 55: 3170
10. Tufnell 1984: Pl. 55: 3181
11. Tufnell 1984: Pl. 56: 3201
12. Tufnell 1984: Pl. 54: 3102
13. MMA 20.1.1
14. MMA 20.1.2
15. MMA 20.1.3
16. MMA 22.1.316
17. MMA 22.1.325
18. MMA 22.1.413

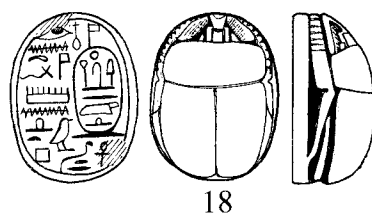
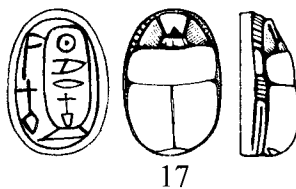
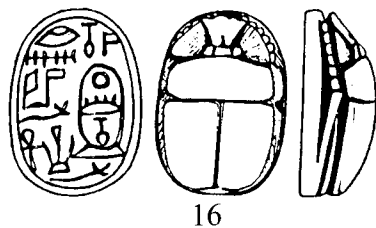
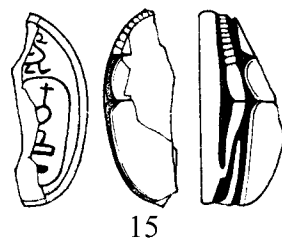
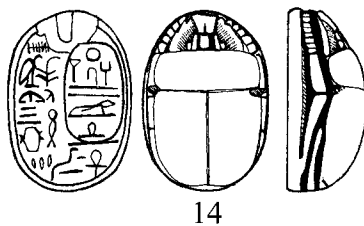
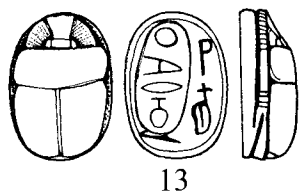
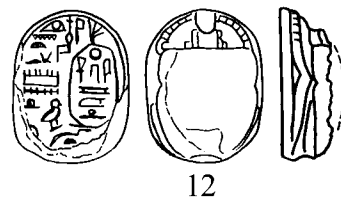
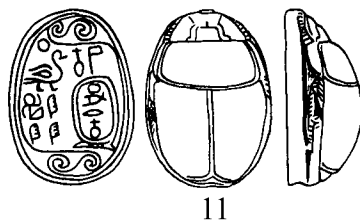
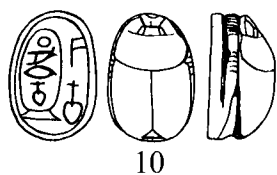
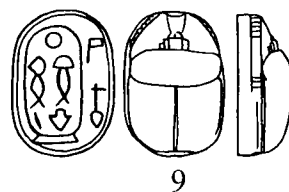
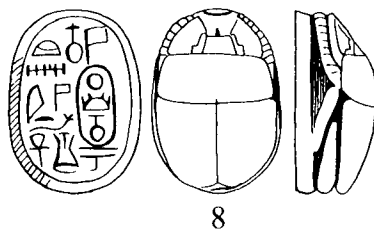
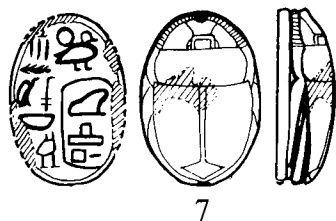
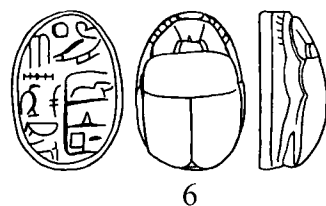
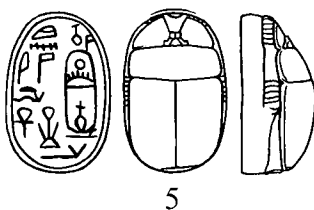
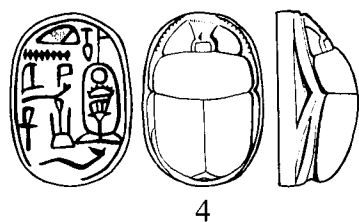
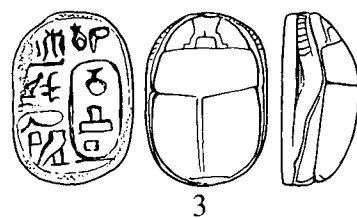
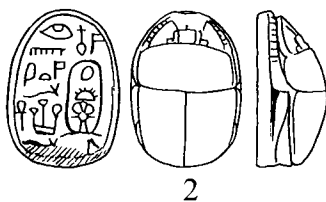
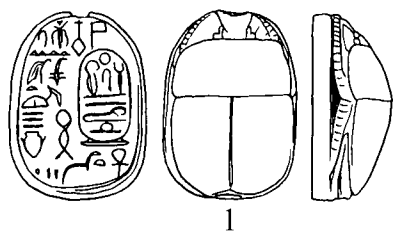
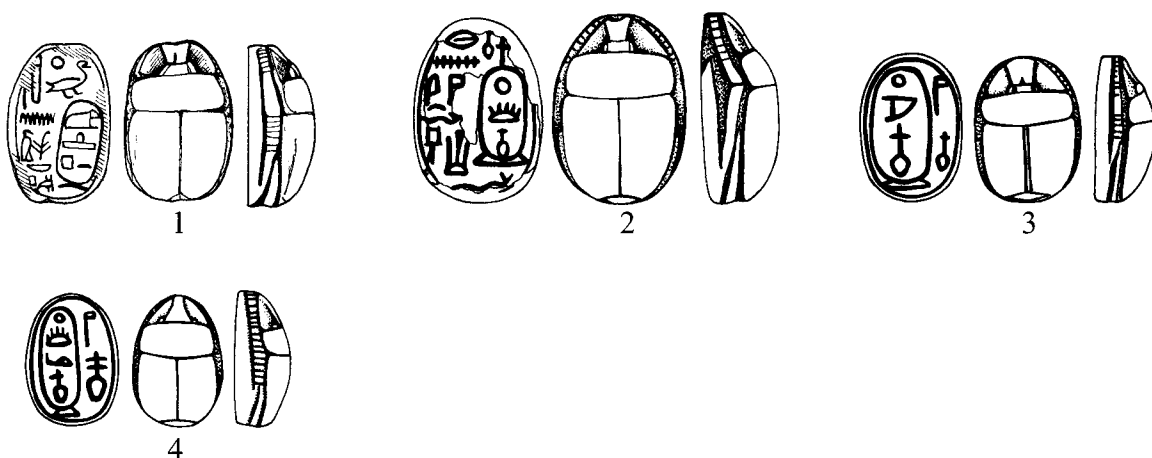


Plate 22

1. MMA 22.1.423
2. IMJ 76.31.3988
3. IMJ 76.31.4048
4. IMJ 76.31.2202
5. Tufnell 1984: Pl. 64: 3530
6. Tufnell 1984: Pl. 64: 3534
7. MMA 22.1.332
8. MMA 22.1.418
9. MMA 09.180.1207
10. IMJ 76.31.4034
11. IMJ 76.31.3888
12. IMJ 76.31.72
13. MMA 22.1.424
14. MMA 09.180.936
15. MMA 09.180.1206



Scarabs of 13th Dynasty queens & princesses



Private-name scarabs with features of the Sobkhotep group scarabs

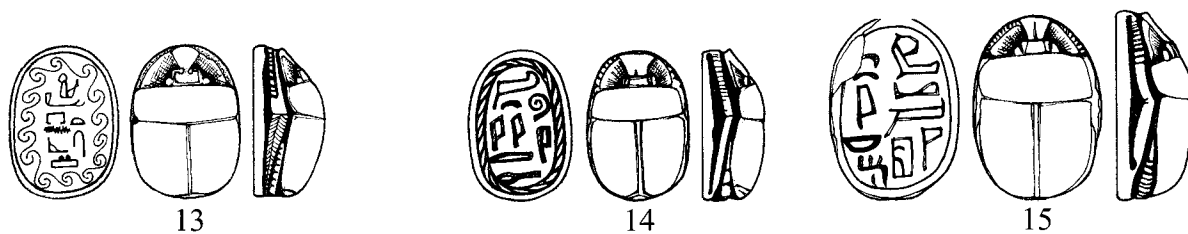


Plate 23

1. MMA 09.180.1208
2. MMA 09.180.1209
3. MMA 09.180.1210
4. MMA 09.180.1212
5. MMA 09.180.1213
6. MMA 09.180.1216
7. MMA 15.3.21
8. MMA 15.3 77
9. MMA 20.1.13
10. MMA 20.1.15
11. MMA 22.1.245
12. MMA 22.1.310
13. MMA 22.1.317
14. MMA 22.1. 318
15. MMA 22.1.320
16. MMA 22.1.324
17. MMA 22.1.327
18. MMA 22.1.422

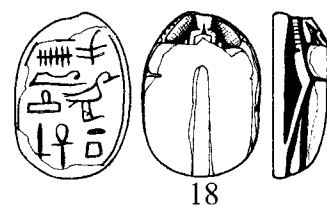
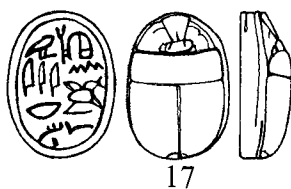
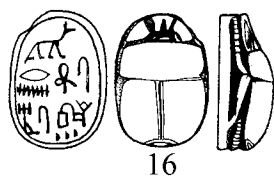
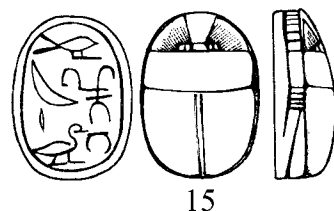
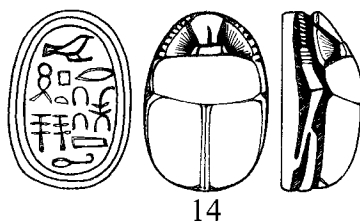
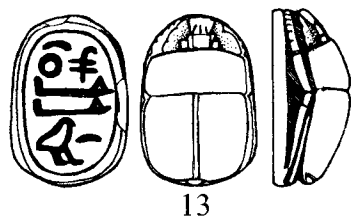
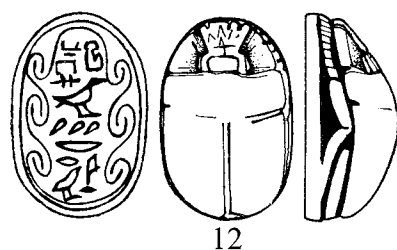
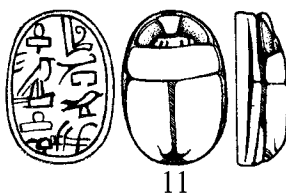
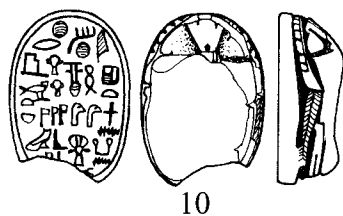
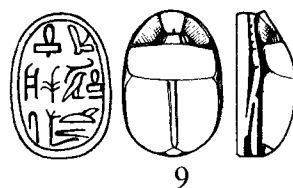
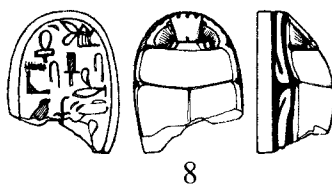
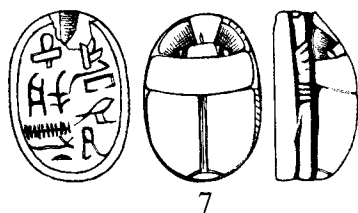
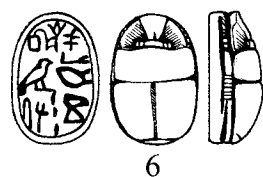
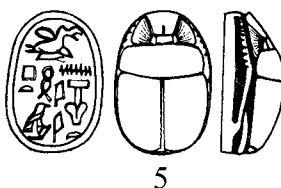
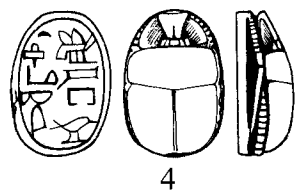
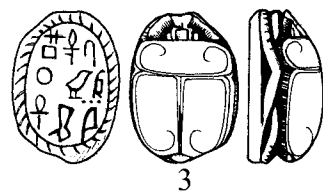
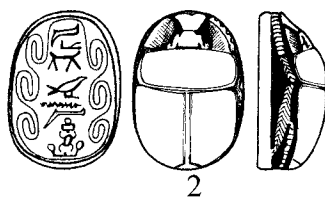
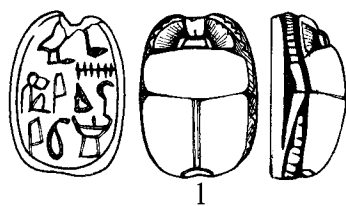
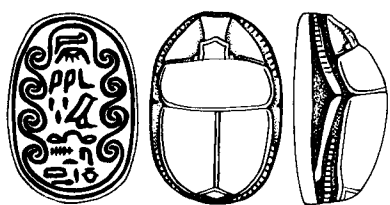
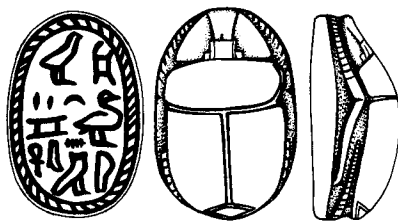


Plate 24

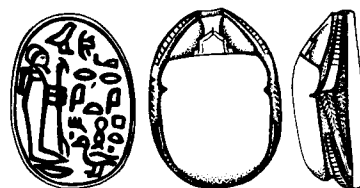
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5. IMJ 76.31.84
6. IMJ 76.31.89
7. IMJ 76.31.90
8. IMJ 76.31.92
9. IMJ 76.31.98
10. IMJ 76.31.4497
11. IMJ 76.31.4501
12. IMJ 76.31.4502
13. IMJ 76.31.4509
14. IMJ 76.31.4516
15. IMJ 76.31.4517
16. IMJ 76.31.4519
17. IMJ 76.31.4521
18. IMJ 76.31.4522



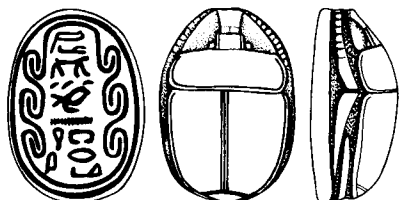
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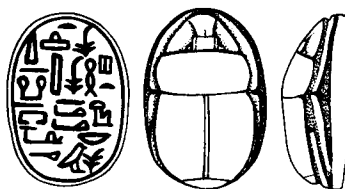
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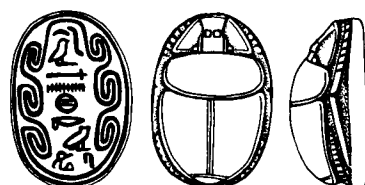
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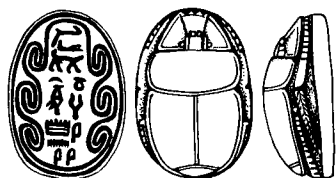
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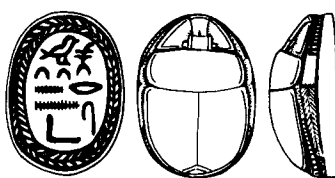
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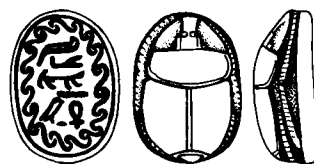
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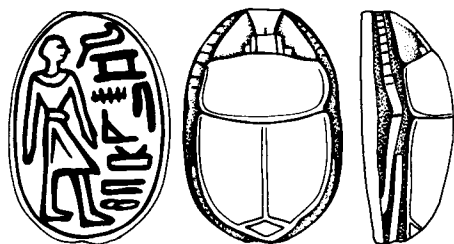
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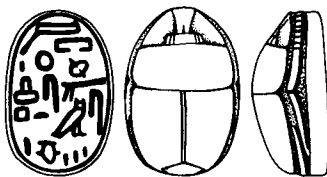
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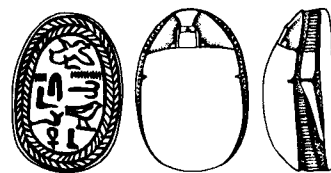
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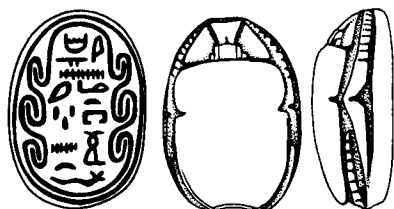
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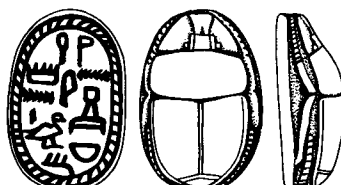
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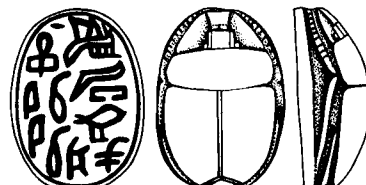
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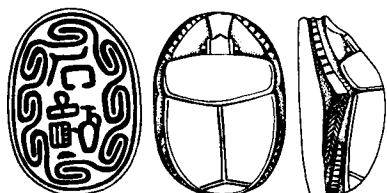
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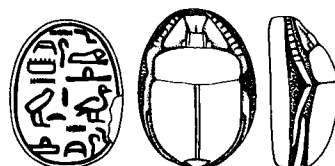
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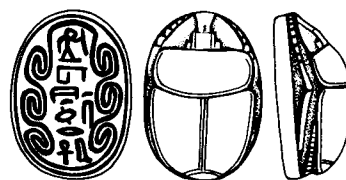
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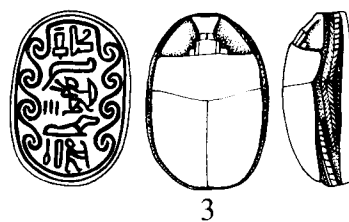
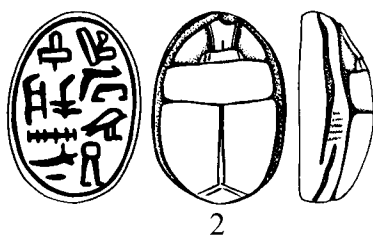
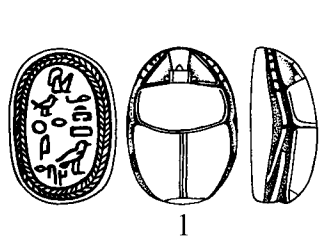
17



18

Plate 25

1. IMJ 76.31.4523
2. IMJ 76.31.4524
3. IMJ 76.31.4595
4. MMA 09.180.969
5. MMA 20.1.112
6. MMA 22.1.205
7. MMA 15.3.234
8. MMA 20.1.23
9. MMA 22.1.313
10. MMA 22.1.366
11. MMA 20.1.24
12. MMA 20.1.27
13. MMA 22.1.457
14. MMA 15.3.409
15. MMA 22.1.330
16. MMA 22.1.336
17. MMA 22.1.308
18. MMA 15.3.62



Design scarabs with features of the Sobkhotep group scarabs

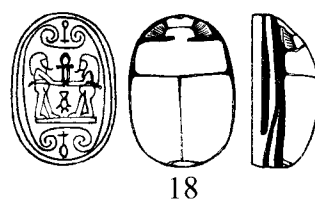
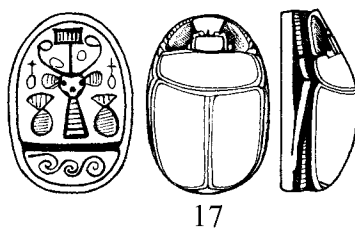
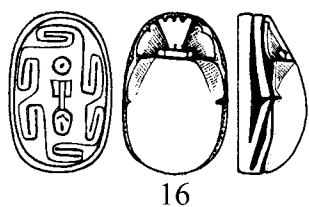
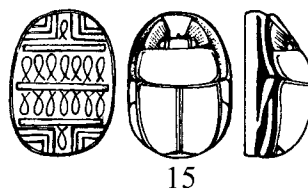
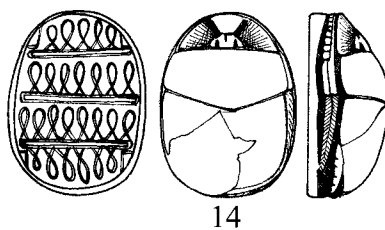
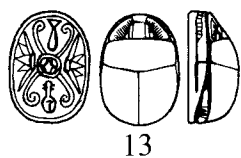
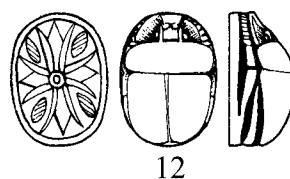
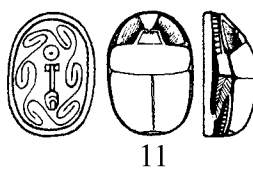
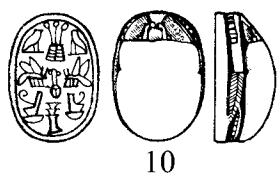
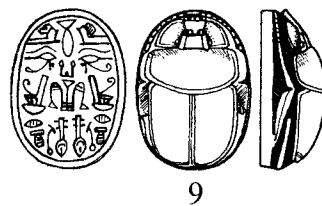
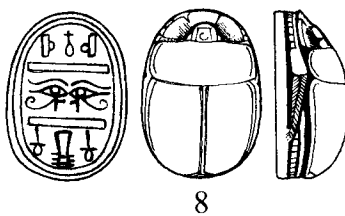
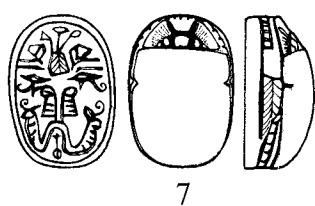
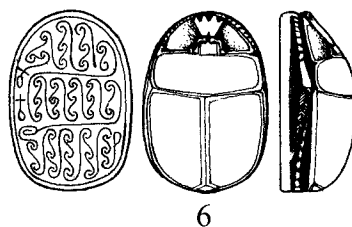
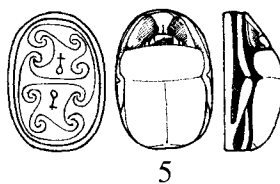
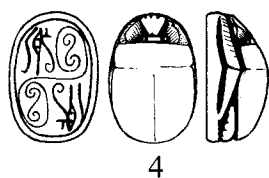


Plate 26

1. IMJ 76.31.67
2. IMJ 76.31.68
3. IMJ 76.31.71
4. IMJ 76.31.78
5. IMJ 67.31.2175
6. IMJ 76.31.2199
7. IMJ 76.31.2977
8. IMJ 76.31.2990
9. IMJ 76.31.2996
10. IMJ 76.31.2998
11. IMJ 76.31.3004
12. IMJ 76.31.3067
13. IMJ 76.31.3072
14. IMJ 76.31.3077
15. IMJ 76.31.3109
16. IMJ 76.31.3118

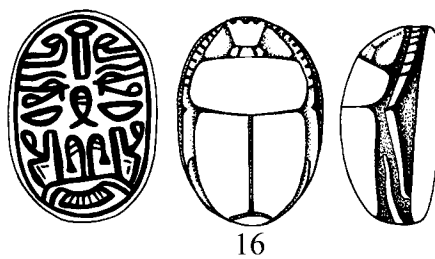
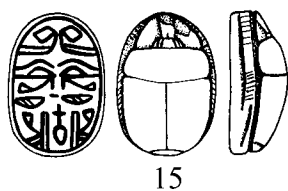
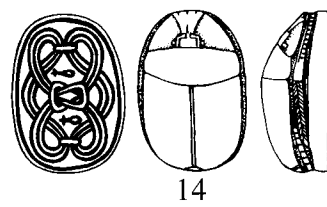
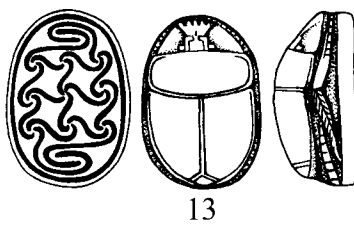
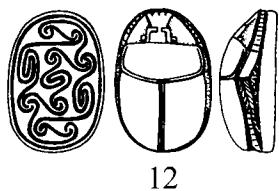
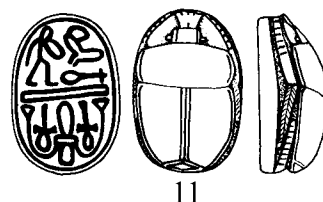
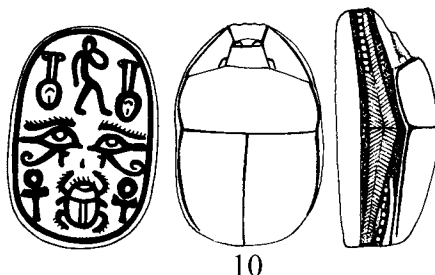
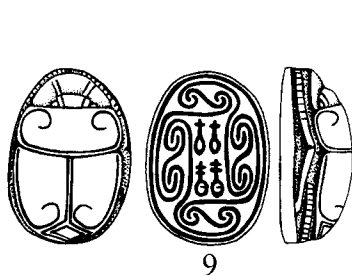
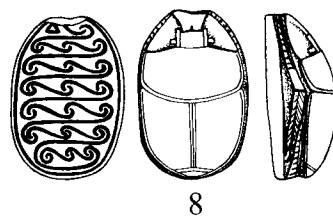
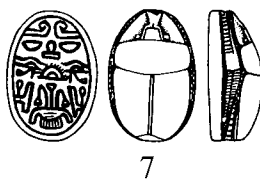
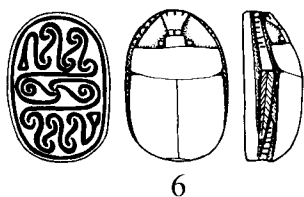
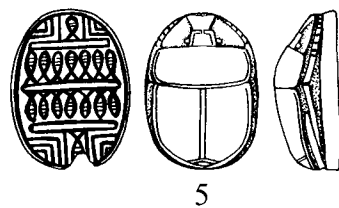
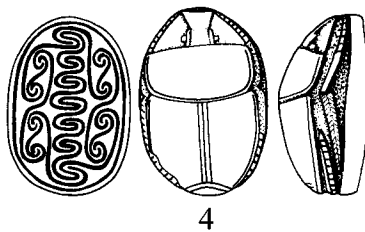
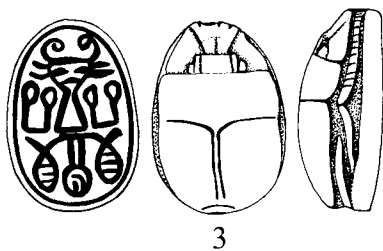
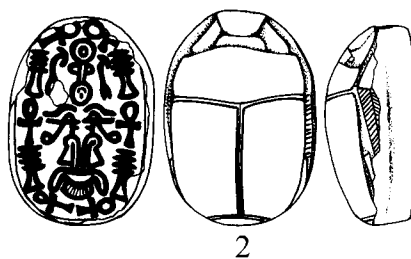
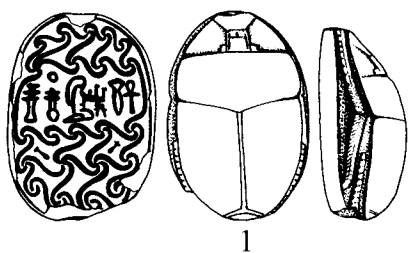
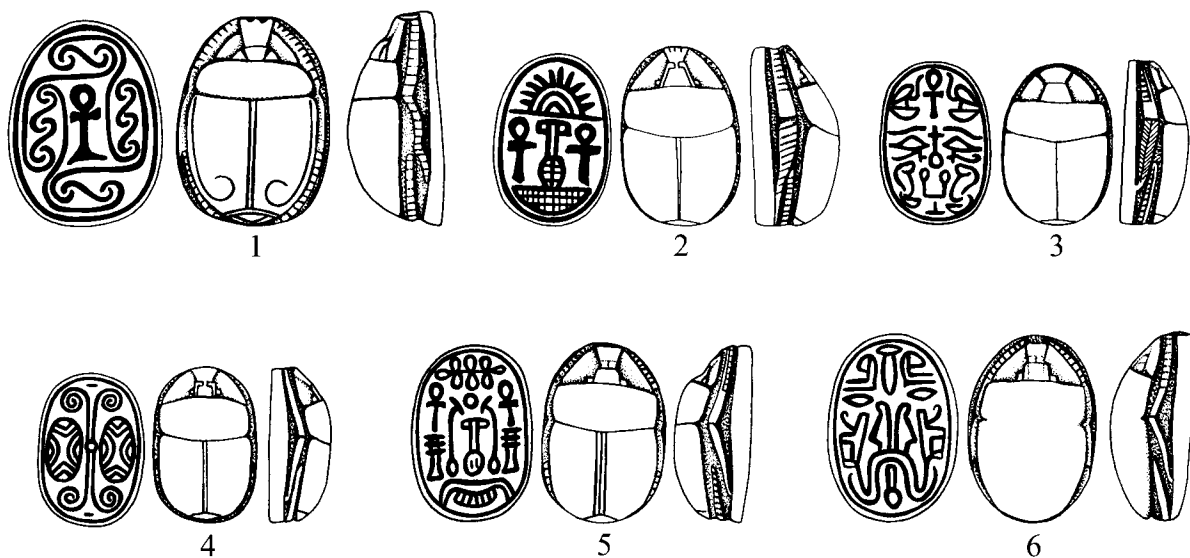


Plate 27

1. IMJ 76.31.3283
2. IMJ 76.31.3841
3. IMJ 76.31.3894
4. IMJ 76.31.4181
5. IMJ 76.31.4410
6. IMJ 76.31.4433
7. IMJ 76.31.2204
8. IMJ 76.31.4399
9. IMJ 76.31.4237
10. IMJ 76.31.3483
11. IMJ 76.31.3000
12. IMJ 76.31.2218
13. IMJ 76.31.2233
14. IMJ 76.31.3579
15. IMJ 76.31.2937
16. IMJ 76.31.2236
17. IMJ 76.31.4257
18. IMJ 76.31.2214



Features of other design scarabs bearing Late Middle Kingdom designs

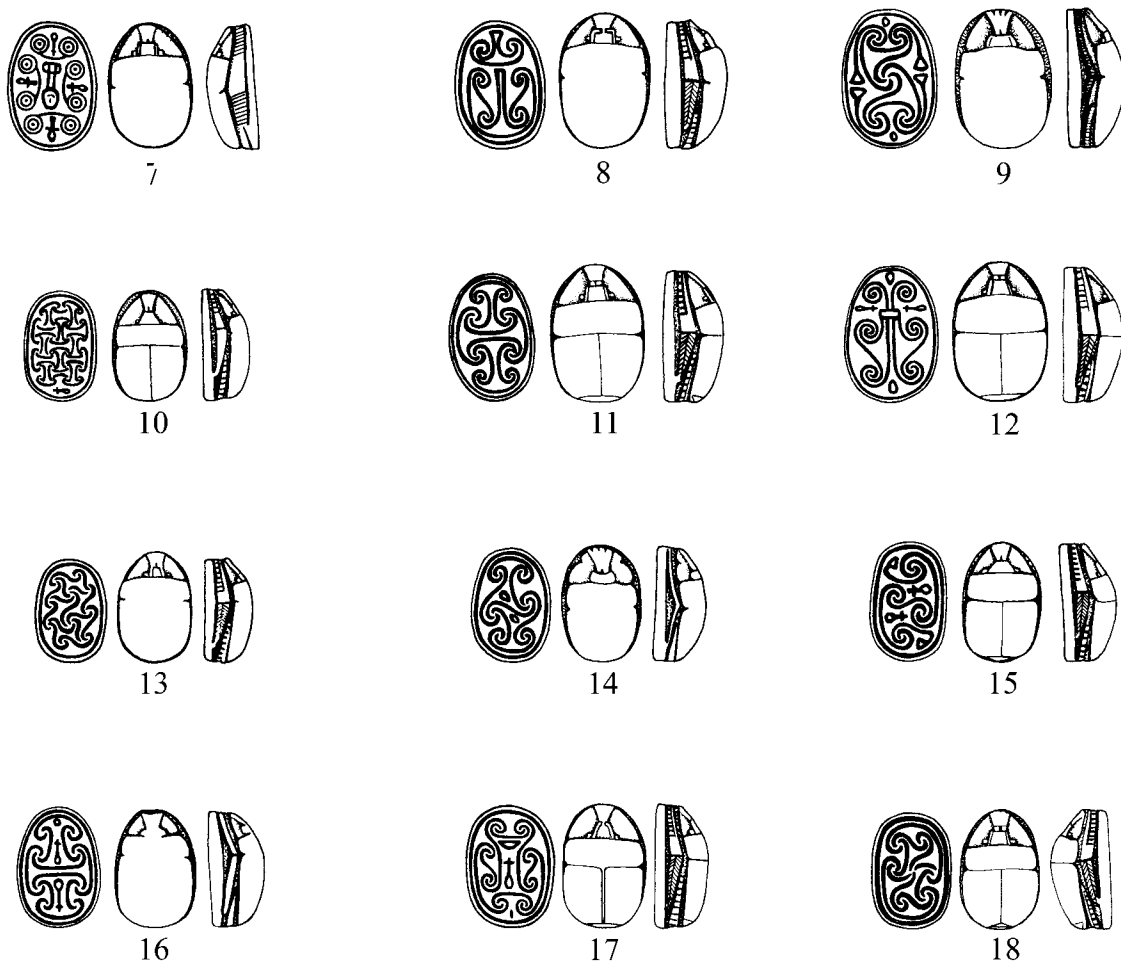


Plate 28

1. IMJ 76.31.4459
2. IMJ 76.31.2150
3. IMJ 76.31.2203
4. IMJ 76.31.4281
5. IMJ 76.31.2265
6. IMJ 76.31.2212
7. IMJ 76.31.3082
8. IMJ 76.31.4378
9. IMJ 76.31.2056
10. IMJ 76.31.2197
11. IMJ 76.31.4422
12. IMJ 76.31.3455
13. IMJ 76.31.4402
14. IMJ 76.31.2229
15. IMJ 76.31.4145
16. IMJ 76.31.4437
17. IMJ 76.31.4421

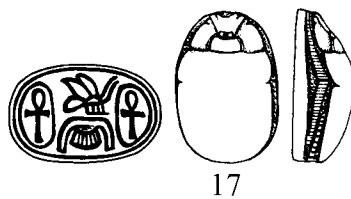
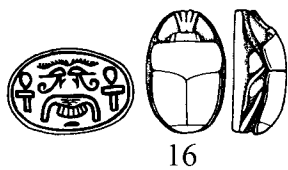
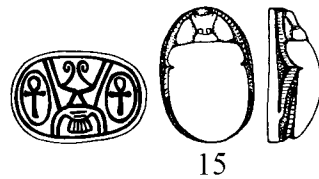
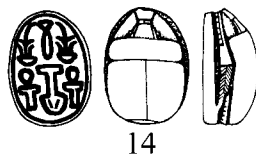
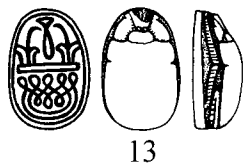
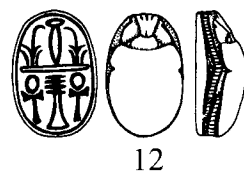
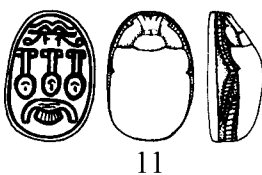
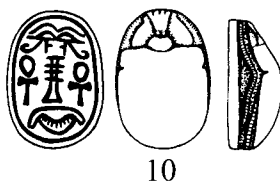
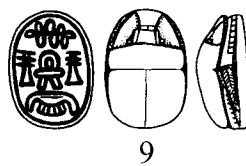
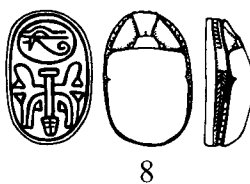
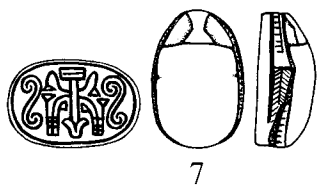
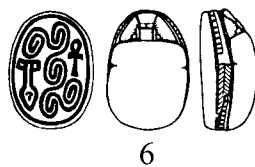
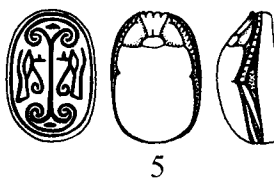
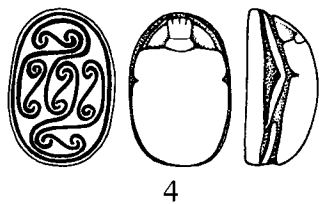
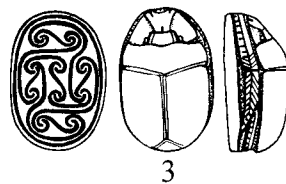
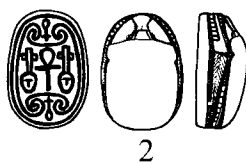
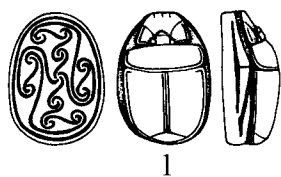
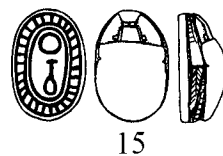
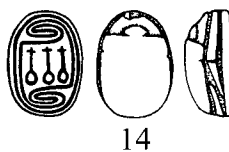
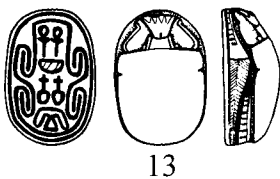
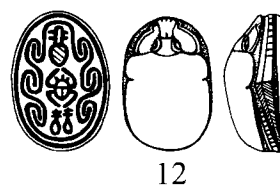
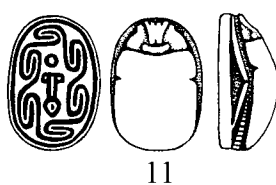
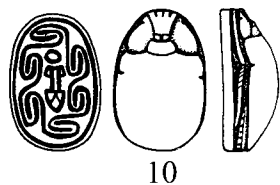
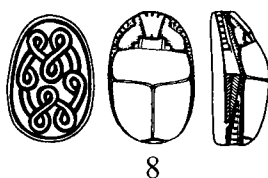
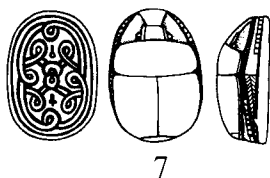
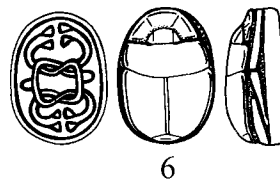
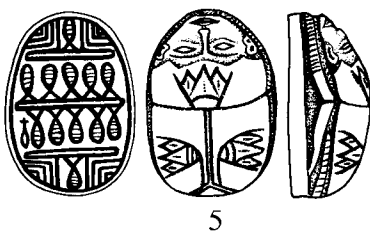
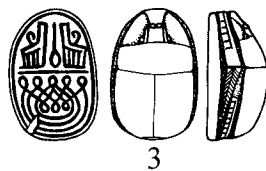
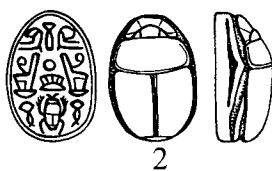
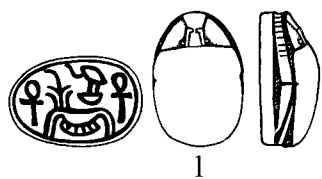


Plate 29

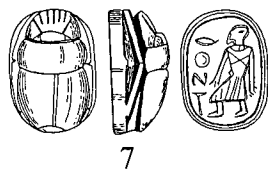
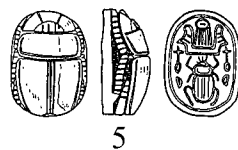
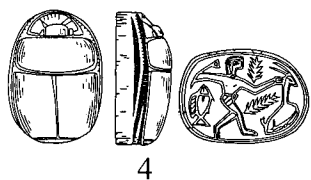
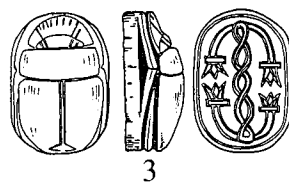
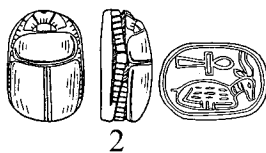
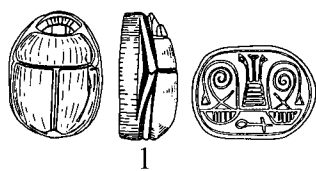
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6. IMJ 76.31.4192
7. IMJ 76.31.3083
8. IMJ 76.31.2201
9. IMJ 76.31.3873
10. IMJ 76.31.3796
11. IMJ 76.31.2981
12. IMJ 76.31.2978
13. IMJ 76.31.3807
14. IMJ 76.31.4448
15. IMJ 76.31.4143



**Scarabs of the Early Workshop
at Tell el-Dab`a**

Plate 30

1. Mlinar 2001: no. 9
2. Mlinar 2001: no. 15
3. Mlinar 2001: no. 104
4. Mlinar 2001: no. 110
5. Mlinar 2001: no. 201
6. Mlinar 2001: no. 203
7. Mlinar 2001: no. 206
8. Mlinar 2001: no. 1036
9. Mlinar 2001: no. 2
10. Mlinar 2001: no. 3
11. Mlinar 2001: no. 4
12. Mlinar 2001: no. 8
13. Mlinar 2001: no. 12
14. Mlinar 2001: no. 21
15. Mlinar 2001: no. 102
16. Mlinar 2001: no. 103
17. Mlinar 2001: no. 105



Early workshop at Tell el-Dab'a: Mlinar's Type III

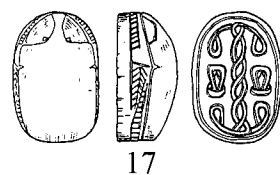
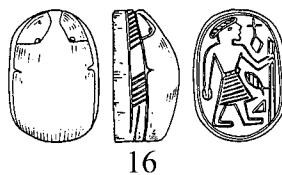
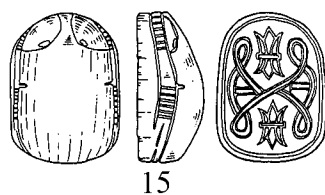
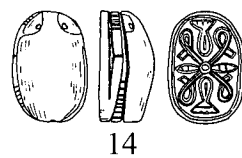
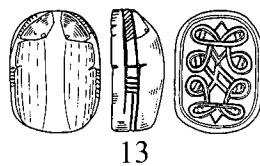
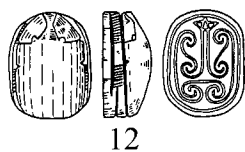
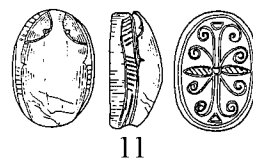
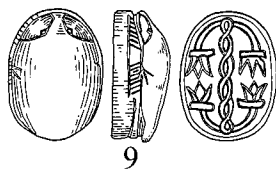
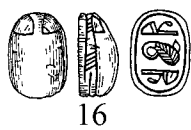
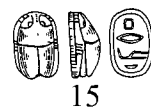
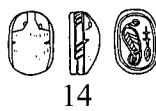
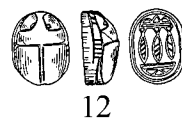
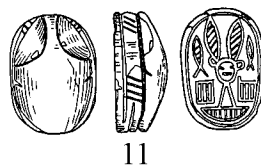
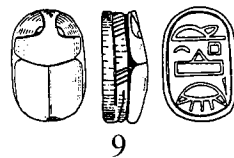
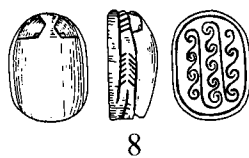
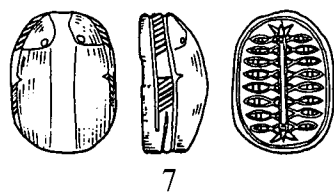
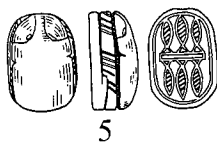
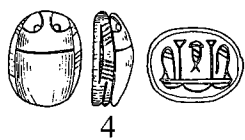
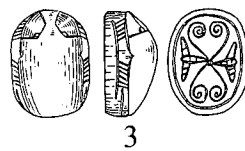
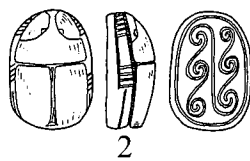
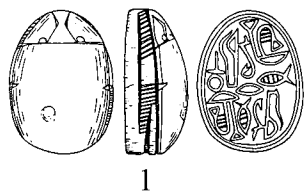


Plate 31

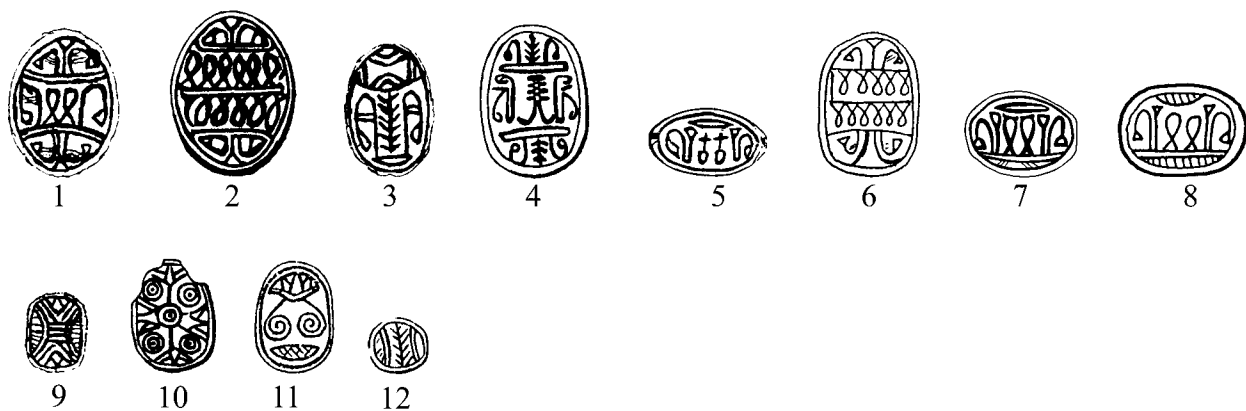
1. Mlinar 2001: no. 106
2. Mlinar 2001: no. 202
3. Mlinar 2001: no. 204
4. Mlinar 2001: no. 207
5. Mlinar 2001: no. 212
6. Mlinar 2001: no. 213
7. Mlinar 2001: no. 214
8. Mlinar 2001: no. 301
9. Mlinar 2001: no. 302
10. Mlinar 2001: no. 303
11. Mlinar 2001: no. 304
12. Mlinar 2001: no. 305
13. Mlinar 2001: no. 307
14. Mlinar 2001: no. 401
15. Mlinar 2001: no. 404
16. Mlinar 2001: no. 511



Egyptian Scarabs
of the Second Intermediate Period

Plate 32

1. Naville and Griffith 1890: Pl. 10: 38
2. Petrie 1906: Pl. 9: 148
3. Naville and Griffith 1890: Pl. 10: 37
4. Petrie 1906: Pl. 9: 128
5. Brunton 1937: Pl. 69: 55
6. Gratien 1986: Fig. 286: Ili
7. Hornung and Staehelin 1976: 400, no. MV 31
8. After Reisner 1923: Pls. 40-41 II: 62 (drawing by Christa Mlinar)
9. Naville and Griffith 1890: Pl. 10: 44
10. Petrie 1906: Pl. 9: 145
11. Petrie and Brunton 1924: Pl. 43: 18
12. Brunton 1937: Pl. 69: 59
13. Tufnell 1978: Fig. 2: 28
14. Mlinar 2001: no. 1003
15. Mlinar 2001: no. 1056
16. Mlinar 2001: no. 1060
17. Brunton 1948: Pl. 43: 28
18. Brunton 1948: Pl. 43: 33
19. Brunton 1930: Pl. 19: 24
20. Brunton 1930: Pl. 19: 25
21. Brunton 1930: Pl. 19: 26
22. After Steindorff 1935: Pl. 31: 19 (drawing by Christa Mlinar)
23. After Steindorff 1935: Pl. 31: 21 (drawing by Christa Mlinar)
24. After Steindorff 1937: Pl. 56: 150 (drawing by Pnina Arad)
25. After Steindorff 1937: Pl. 56: 167 (drawing by Christa Mlinar)
26. Säve-Söderbergh 1989: Fig. 37: 99/11:5B
27. After Vercoutter 1976: Fig. 8: 15 (drawing by Christa Mlinar)
28. After Vercoutter 1976: Fig. 7: a (drawing by Pnina Arad)
29. After Dunham and Janssen 1960: Pl. 121: 21 (drawing by Christa Mlinar)
30. After Dunham and Janssen 1960: Pl. 123: 18 (drawing by Christa Mlinar)
31. Vila 1987: 237, no. 189/21
32. Keel 1997: 107, no. 3
33. Tell el-Maskhuta M81-457
34. Brunton 1948: Pl. 43: 29
35. Brunton 1930: Pl. 19: 3
36. Brunton 1930: Pl. 19: 23
37. Petrie 1901: Pl. 41: 15
38. After Steindorff 1937: Pl. 56: 154 (drawing by Christa Mlinar)
39. After Randall-MacIver and Woolley 1911: Pl. 58: 10114 (drawing by Christa Mlinar)
40. After Randall-MacIver and Woolley 1911: Pl. 58: 10130 (drawing by Christa Mlinar)
41. After Vercoutter 1976: Fig. 6: 10 (drawing by Christa Mlinar)
42. After Dunham and Janssen 1960: Pl. 121: 20 (drawing by Christa Mlinar)
43. Vila 1978: 237, no. 189/20
44. After Reisner 1923: Pls. 40-41 II: 6 (drawing by Pnina Arad)



Design class 2A - scrolls and spirals, unlinked



Design class 2B - scrolls and spirals, interlocking

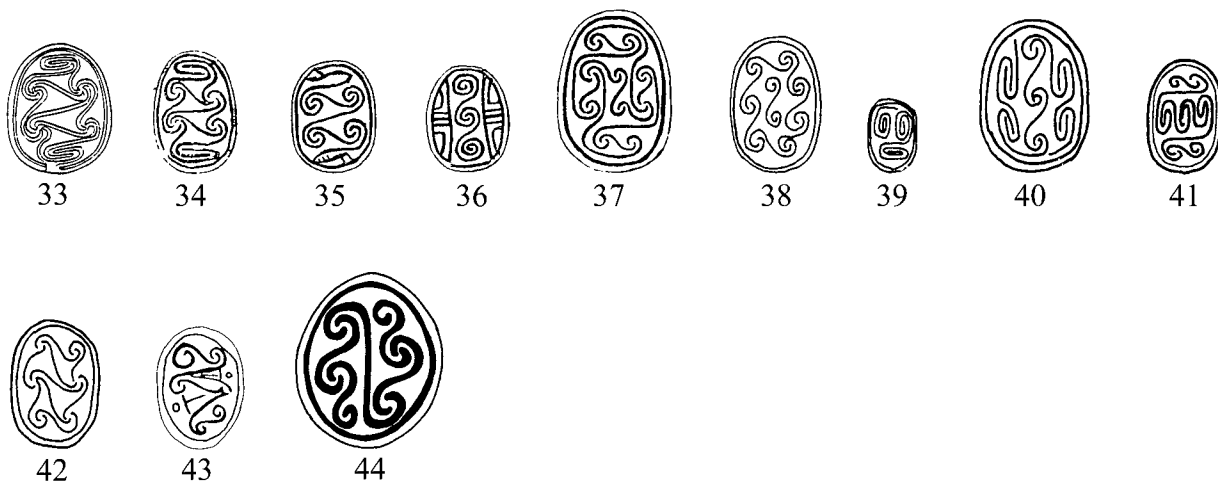
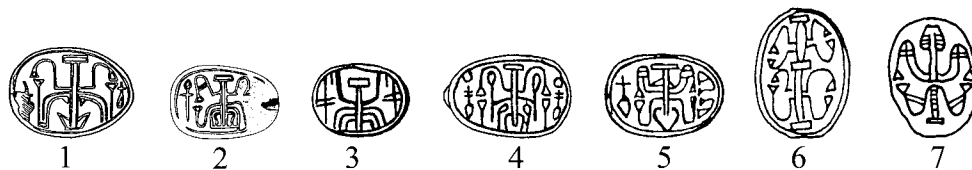
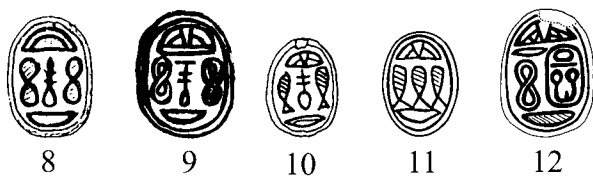


Plate 33

1. Mlinar 2001: no. 520
2. Mlinar 2002: no. 8634
3. Petrie 1906: Pl. 9: 180
4. Brunton 1930: Pl. 19: 9
5. Petrie 1896: Pl. 25: 134
6. After Steindorff 1937: Pl. 56: 119 (drawing by Christa Mlinar)
7. After Randall-MacIver and Woolley 1911: Pl. 57: 10066 (drawing by Christa Mlinar)
8. Brunton 1948: Pl. 43: 34
9. Downes 1974: 61, Group 198: i3
10. After Steindorff 1937: Pl. 56: 98 (drawing by Christa Mlinar)
11. Keel 1997: 107, no. 5
12. Hornung and Staehelin 1976: 221, no. 152
13. Tell el-Maskhuta M83-488
14. Petrie and Brunton 1924: Pl. 43: 66
15. After Steindorff 1937: Pl. 56: 152 (drawing by Christa Mlinar)
16. After Vercoutter 1976: Fig. 6: 6 (drawing by Christa Mlinar)
17. Säve-Söderbergh 1989: Fig. 38: 220/42:4B
18. Firth 1915: Pl. 41: 58
19. Hornung and Staehelin 1976: 225, no. 171
20. Hornung and Staehelin 1976: 225, no. 172
21. Ben-Tor 2004c: Fig. 7: 1
22. Ben-Tor 2004c: Fig. 7: 2
23. Ben-Tor 2004c: Fig. 7: 3
24. Ben-Tor 2004c: Fig. 7: 4
25. Ben-Tor 2004c: Fig. 7: 5
26. Ben-Tor 2004c: Fig. 7: 6
27. Ben-Tor 2004c: Fig. 7: 7
28. Ben-Tor 2004c: Fig. 7: 8
29. Ben-Tor 2004c: Fig. 7: 9
30. Ben-Tor 2004c: Fig. 7: 10
31. Ben-Tor 2004c: Fig. 7: 11
32. Tufnell 1984: Pl. 9: 1459
33. Tufnell 1984: Pl. 9: 1465
34. Tufnell 1984: Pl. 9: 1466
35. Givon 1988: 74-75, no. 81
36. Petrie and Brunton 1924: Pl. 43: 50
37. Brunton 1948: Pl. 43: 37
38. Brunton 1937: Pl. 69: 18
39. Brunton 1930: Pl. 19: 12
40. Brunton 1930: Pl. 19: 14
41. Petrie and Quibell 1896: Pl. 80: 52
42. Downes 1974: 62, Group 221: 4
43. Downes 1974: 62, Group 223: 5
44. After Steindorff 1937: Pl. 56: 105 (drawing by Christa Mlinar)



Design class 3A3 - varia



Design class 3A4 - Horus hawk with *ntr* and other signs



Design class 3B1c - cobras confronted

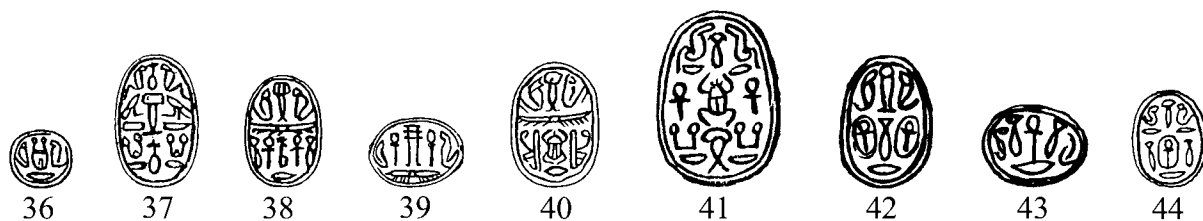


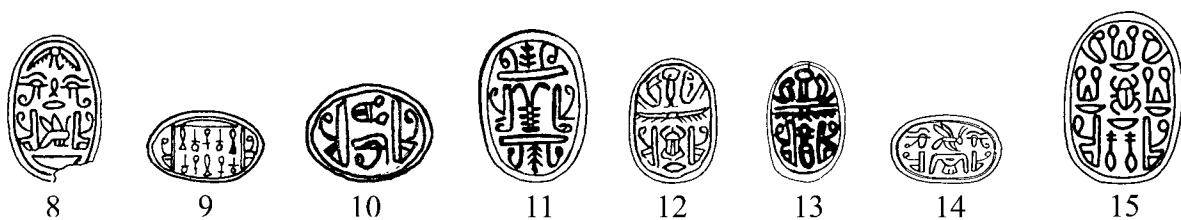
Plate 34

1. Säve-Söderbergh 1989: Fig. 38: 170/0:24
2. Säve-Söderbergh 1989: Fig. 38: 170/37:10B
3. Säve-Söderbergh 1989: Fig. 38: 170/37:10I
4. Säve-Söderbergh 1989: Fig. 38: 170/37:10K
5. After Dunham and Janssen 1960: Pl. 121: 27 (drawing by Christa Mlinar)
6. Vila 1987: 231, no. 88/4
7. Keel 1997: 259, no. 458
8. Petrie 1901: Pl. 41: 14
9. After Reisner 1923: Pls. 40-41 II: 58 (drawing by Christa Mlinar)
10. Downes 1974: 60, Group 140: 2
11. Petrie 1906: Pl. 9: 128
12. Brunton 1930: Pl. 19: 14
13. Vila 1987: 231, no. 88/4
14. Mlinar 2001, no. 507
15. Säve-Söderbergh 1989: Fig. 38: 170/37:10B
16. Mlinar 2001: no. 509
17. Mlinar 2001, no. 602
18. Mlinar 2001, no. 1006
19. Mlinar 2001, no. 1030
20. Naville and Griffith 1890: Pl. 10: 23
21. Firth 1915: Pl. 41: 71
22. Firth 1927: Pl. 36: 199
23. After Steindorff 1935: Pl. 31: 25 (drawing by Christa Mlinar)
24. Vercoutter 1976: Fig. 5: 11
25. Vila 1987: 236: 189/18
26. After Reisner 1923: Pls. 40-41 II: 63 (drawing by Christa Mlinar)
27. Mlinar 2002: no. 8626
28. Tufnell 1984: Pl. 13: 1600
29. Tufnell 1984: Pl. 13: 1601
30. Tufnell 1984: Pl. 13: 1603
31. Tufnell 1984: Pl. 13: 1604
32. Tufnell 1984: Pl. 13: 1606
33. Tufnell 1984: Pl. 13: 1608
34. Tufnell 1984: Pl. 13: 1615
35. Mlinar 2001, no. 507
36. Petrie 1901: Pl. 41: 14
37. Petrie and Quibell 1896: Pl. 80: 56
38. After Dunham and Janssen 1960: Pl. 121: 27 (drawing by Christa Mlinar)

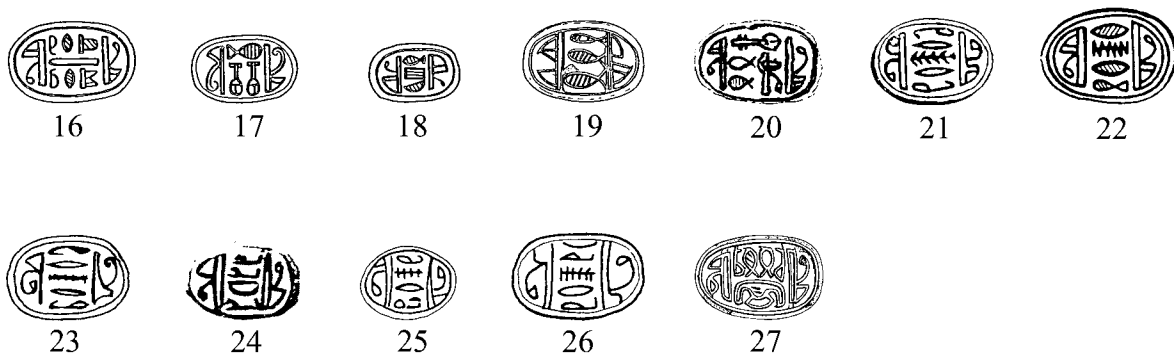


Design class 3B3 - red crowns

Type b



Type e



Design class 3B4 - Horus eyes (*wd3t*)

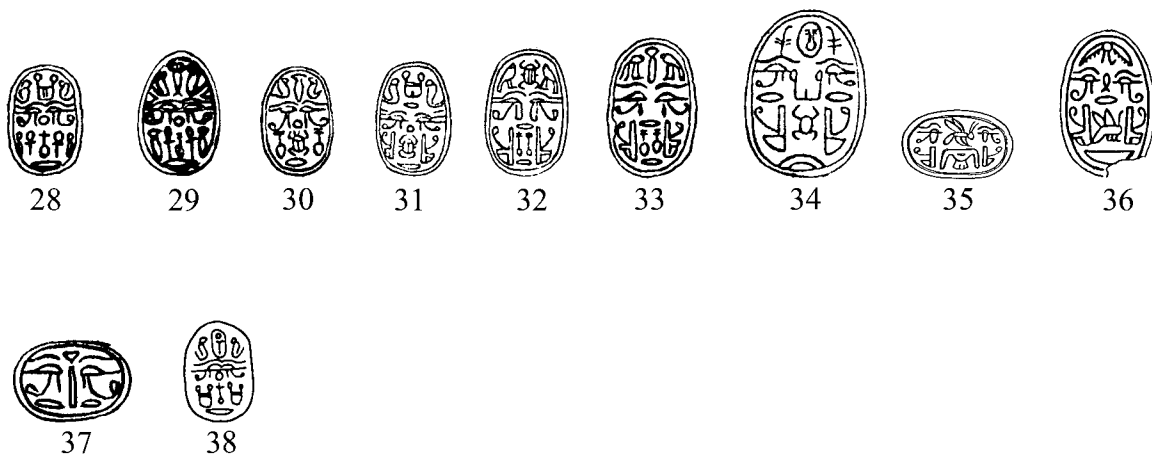
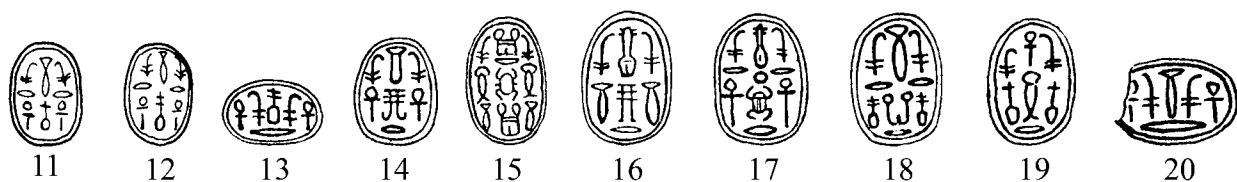
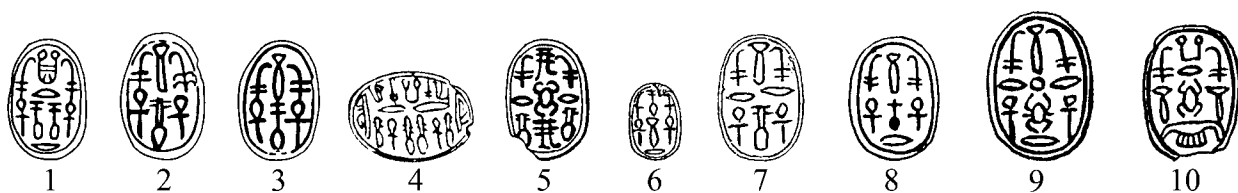


Plate 35

1. Säve-Söderbergh 1989: Fig. 38: 170/37: 10E
2. Säve-Söderbergh 1989: Fig. 38: 170/37: 10F
3. Säve-Söderbergh 1989: Fig. 38: 338/1:2
4. Brunton 1937: Pl. 69: 53
5. Petrie 1906: Pl. 9: 122
6. Brunton 1930: Pl. 19: 51
7. Brunton 1930: Pl. 19: 52
8. Petrie 1896: Pl. 16: 1200
9. Petrie and Quibell 1896: Pl. 80: 53
10. Petrie and Quibell 1896: Pl. 80: 54
11. After Reisner 1923: Pls. 40-41 II: 72 (drawing by Christa Mlinar)
12. After Reisner 1923: Pls. 40-41 II: 73 (drawing by Christa Mlinar)
13. Tufnell 1984: Pl. 14: 1636
14. Tufnell 1984: Pl. 14: 1639
15. Tufnell 1984: Pl. 14: 1645
16. Tufnell 1984: Pl. 14: 1651
17. Tufnell 1984: Pl. 14: 1652
18. Tufnell 1984: Pl. 14: 1653
19. Tufnell 1984: Pl. 14: 1654
20. Petrie and Quibell 1896: Pl. 80: 55
21. Mlinar 2001: no. 507
22. Mlinar 2001: no. 604
23. Mlinar 2002: no. 8626
24. Naville and Griffith 1890: Pl. 10: 20
25. Petrie 1906: Pl. 9: 168
26. Petrie 1906: Pl. 9: 169
27. Petrie 1906: Pl. 9: 171
28. Säve-Söderbergh 1989: Fig. 37: 220/28: 1C
29. Downes 1974: 61, Group 190: 4
30. Downes 1974: 65, Group 305: 1
31. Säve-Söderbergh 1989: Fig. 39: 170/37: 10H
32. After Randall-MacIver and Woolley 1911: Pl. 56: 10041 (drawing by Christa Mlinar)
33. Reisner 1923: Fig. 168: 55
34. Petrie 1906: Pl. 9: 172
35. Petrie and Brunton 1924: Pl. 43: 25
36. Downes 1974: 60, Group 27: 1
37. Brunton 1930: Pl. 19: 57
38. Brunton 1930: Pl. 19: 58
39. Ben-Tor 2004c: Fig. 3: 1
40. Ben-Tor 2004c: Fig. 3: 2
41. Ben-Tor 2004c: Fig. 3: 3
42. Ben-Tor 2004c: Fig. 3: 4



Design class 3B6 - gold sign (*nbw*) in longitudinal setting



Design class 3C - formulae

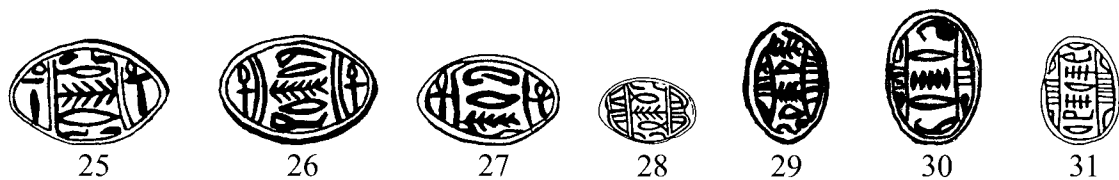


Plate 36

1. Mlinar 2001: no. 618
2. Petrie 1901: Pl. 41: 8
3. After Randall-MacIver and Woolley 1911: Pl. 57: 10090 (drawing by Christa Mlinar)
4. After Steindorff 1937: Pl. 56: 152 (drawing by Christa Mlinar)
5. After Vercoutter 1976: Fig. 6: 6 (drawing by Christa Mlinar)
6. Hornung and Staehelin 1976: 221, no. 152
7. Hornung and Staehelin 1976: 221, no. 153
8. Hornung and Staehelin 1976: 225, no. 171
9. Hornung and Staehelin 1976: 225, no. 172
10. Ben-Tor 2004c: Fig. 7: 2
11. Ben-Tor 2004c: Fig. 7: 3
12. Ben-Tor 2004c: Fig. 7: 4
13. Ben-Tor 2004c: Fig. 7: 11
14. Ben-Tor 2004c: Fig. 7: 9
15. Hornung and Staehelin 1976: 220, no. 151
16. Hornung and Staehelin 1976: 221, no. 154
17. Mlinar 2001: no. 1038
18. Martin 1971: Pl. 41: 1
19. Martin 1971: Pl. 41: 3
20. Martin 1971: Pl. 41: 2
21. Martin 1971: Pl. 41: 6
22. Mlinar 2001: no. 609
23. Downes 1974: 62, Group 221: 2
24. Mlinar 2001: no. 1005
25. Mlinar 2001, no. 1069
26. Brunton 1930: Pl. 19: 4
27. Brunton 1930: Pl. 19: 23
28. Brunton 1930: Pl. 19: 27
29. Petrie 1896: Pl. 25: 161
30. Downes 1974: 61, Group 190: 4
31. Downes 1974: 65, Group 305: 1
32. Säve-Söderbergh 1989: Fig. 39: 170/37: 10H
33. Reisner 1923: Fig. 168: 55

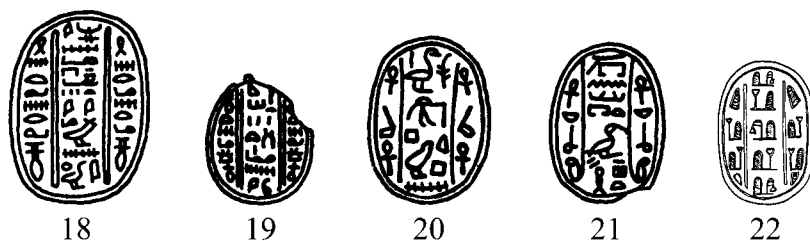


Design class 3D2 - actual cartouches

Design class 3D3 - cartouches, varia



Design class 3E1 - panels, three or more signs in margins



Design class 3E2 - panels, two signs in margins



Design class 3E4 - panels, cross bars in margins

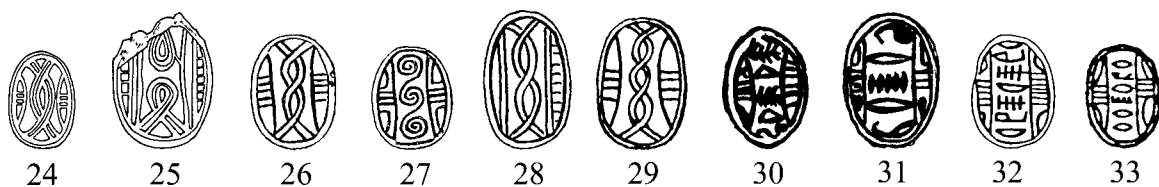


Plate 37

1. Mlinar 2001: no. 902
2. Mlinar 2001: no. 1018
3. Mlinar 2001: no. 1021
4. Mlinar 2001: no. 1051
5. Mlinar 2001: no. 1053
6. Petrie and Brunton 1924: Pl. 43: 2
7. Petrie and Brunton 1924: Pl. 43: 20
8. Petrie and Brunton 1924: Pl. 43: 21
9. Petrie and Brunton 1924: Pl. 43: 26
10. Petrie and Brunton 1924: Pl. 43: 27
11. Petrie and Brunton 1924: Pl. 43: 28
12. Petrie and Brunton 1924: Pl. 43: 29
13. Petrie and Brunton 1924: Pl. 43: 30
14. Petrie and Brunton 1924: Pl. 43: 32
15. Petrie and Brunton 1924: Pl. 43: 33
16. Petrie and Brunton 1924: Pl. 43: 34
17. Petrie and Brunton 1924: Pl. 43: 35
18. Petrie and Brunton 1924: Pl. 43: 37
19. Petrie and Brunton 1924: Pl. 43: 38
20. Petrie and Brunton 1924: Pl. 43: 39
21. Petrie and Brunton 1924: Pl. 43: 45
22. Brunton 1937: Pl. 69: 44
23. Brunton 1937: Pl. 69: 45
24. Brunton 1930: Pl. 19: 73
25. Brunton 1930: Pl. 19: 74
26. Brunton 1930: Pl. 19: 75
27. Brunton 1930: Pl. 19: 76
28. Downes 1974: 63, Group 242: 5
29. Downes 1974: 63, Group 248: 6
30. Downes 1974: 65, Group 329: 3
31. Firth 1915: Pl. 41: 92
32. After Steindorff 1935: Pl. 31: 26 (drawing by Christa Mlinar)
33. Säve-Söderbergh 1989: Fig. 37: 95/171: 1
34. Säve-Söderbergh 1989: Fig. 37: 99/11: 5A
35. After Randall-MacIver and Woolley 1911: Pl. 59: 10178 (drawing by Christa Mlinar)
36. After Vercoutter 1976: Fig. 5: 10 (drawing by Christa Mlinar)
37. After Vercoutter 1976: Fig. 5: 1 (drawing by Christa Mlinar)
38. After Dunham and Janssen 1960: Pl. 120: 14 (drawing by Christa Mlinar)
39. After Dunham and Janssen 1960: Pl. 120: 15 (drawing by Christa Mlinar)
40. After Dunham and Janssen 1960: Pl. 121: 30 (drawing by Christa Mlinar)
41. After Dunham and Janssen 1960: Pl. 122: 10 (drawing by Christa Mlinar)
42. After Dunham and Janssen 1960: Pl. 122: 11 (drawing by Christa Mlinar)
43. After Dunham and Janssen 1960: Pl. 122: 12 (drawing by Christa Mlinar)
44. Vila 1987: 243, no. 226/13
45. After Reisner 1923: Pls. 40-41 II: 3 (drawing by Christa Mlinar)
46. After Reisner 1923: Pls. 40-41 II: 4 (drawing by Christa Mlinar)
47. Brunton 1930: Pl. 19: 2
48. Petrie 1901: Pl. 41: 8
49. Downes 1974: 60, Group 113: 2
50. After Randall-MacIver and Woolley 1911: Pl. 57: 10070 (drawing by Christa Mlinar)
51. Vercoutter 1976: Fig. 8: 2

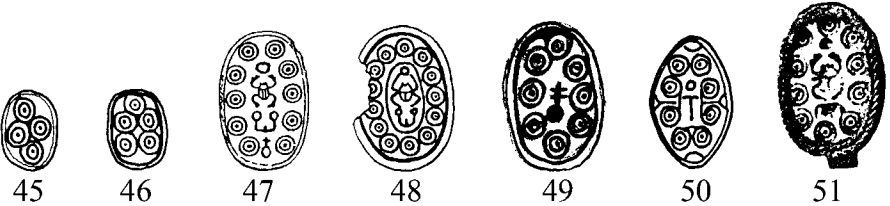
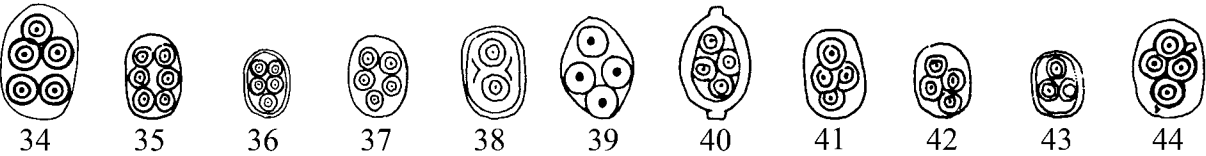
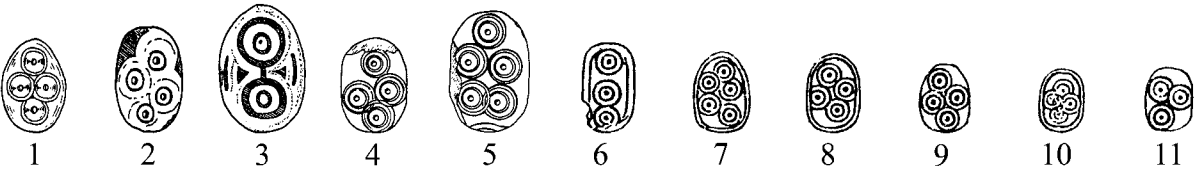


Plate 38

1. Petrie 1906: Pl. 9: 148
2. Brunton 1930: Pl. 19: 34
3. Gratien 1986: Fig. 286: Ili
4. After Reisner 1923: Pls. 40-41 II: 9 (drawing by Christa Mlinar)
5. Vila 1987: 229, no. 52/4
6. Mlinar 2001: no. 1005
7. Naville and Griffith 1890: Pl. 10: 45
8. Petrie 1906: Pl. 9: 183
9. Brunton 1930: Pl. 19: 4
10. Brunton 1930: Pl. 19: 5
11. Brunton 1930: Pl. 19: 6
12. Brunton 1930: Pl. 19: 27
13. Brunton 1930: Pl. 19: 28
14. Petrie 1896: Pl. 25: 160
15. Petrie 1896: Pl. 25: 161
16. Downes 1974: 60, Group 135: 2
17. After Steindorff 1937: Pl. 56: 163 (drawing by Christa Mlinar)
18. Vila 1987: 243, no. 226/14
19. After Reisner 1923: Pls. 40-41 II: 52 (drawing by Christa Mlinar)



1



2



3

Design class 6B1-2 - convoluted coils



4

Design class 6B3 - convoluted coils, varia



5

Design class 6C3 - encompassed coils, central cable



6



7



8



9



10



11



12



13



14



15



16



17



18



19

Plate 39

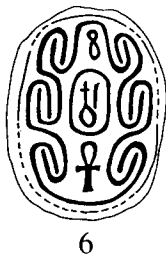
1. After Randall-MacIver and Woolley 1911: Pl. 57: 10090 (drawing by Christa Mlinar)
2. Hornung and Staehelin 1976: 384, no. B 69
3. Mlinar 2001: no. 618
4. Mlinar 2001: no. 1011
5. Naville and Griffith 1890: Pl. 10: 2
6. Säve-Söderbergh 1989: Fig. 37: 65/71: 1
7. After Dunham and Janssen 1960: Pl. 121: 7 (drawing by Christa Mlinar)
8. Brunton 1930: Pl. 19: 22
9. Martin 1971: Pl. 5: 6
10. Martin 1971: Pl. 5: 7
11. Martin 1971: Pl. 5: 9
12. Martin 1971: Pl. 5: 10
13. Martin 1971: Pl. 5: 11
14. Martin 1971: Pl. 5: 12
15. Vila 1987: 230, no. 56/2
16. Martin 1971: Pl. 3: 28
17. Hornung and Staehelin 1976: 374, no. B7



Design class 7A2 - continuous scroll border, oblong scrolls



Design class 7B3 (ii) - paired scrolls, three pairs, oblong



Design class 7C2 (ii) - paired scrolls, open, two pairs, oblong



Design class 7C3 (i) - paired scrolls, open, three pairs, round



Plate 40

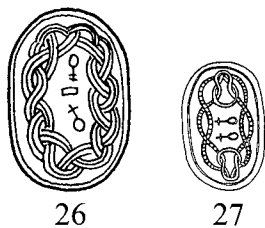
1. Martin 1971: Pl. 11: 8
2. Martin 1971: Pl. 11: 10
3. Martin 1971: Pl. 11: 11
4. Martin 1971: Pl. 11: 13
5. Martin 1971: Pl. 11: 21
6. Mlinar 2001: no. 706
7. Petrie 1906: Pl. 9: 114
8. Petrie 1906: Pl. 9: 120
9. Petrie 1896: Pl. 25: 83
10. Downes 1974: 66, Group 355: 16
11. After Reisner 1923: Pls. 40-41 II: 76 (drawing by Christa Mlinar)
12. Vila 1987: 229, no. 52/4
13. After Reisner 1923: Pls. 40-41 II: 9 (drawing by Christa Mlinar)
14. Petrie and Quibell 1896: Pl. 81: 142
15. Mlinar 2001, no. 709
16. After Randall-MacIver and Woolley 1911: Pl. 96: 10746 (drawing by Christa Mlinar)
17. Tufnell 1984: Pl. 63: 3501
18. Tufnell 1984: Pl. 63: 3503
19. Tufnell 1984: Pl. 63: 3504
20. Tufnell 1984: Pl. 63: 3506
21. Tufnell 1984: Pl. 63: 3508
22. Tufnell 1984: Pl. 63: 3509
23. Tufnell 1984: Pl. 63: 3510
24. Tufnell 1984: Pl. 63: 3512
25. Tufnell 1984: Pl. 63: 3513
26. After Vercoutter 1976: Fig. 6: 4 (drawing by Christa Mlinar)
27. Mlinar 2001, no. 608
28. Tufnell 1984: Pl. 63: 3500
29. Vercoutter 1976: Fig. 8: 7
30. After Reisner 1923: Pls. 40-41 II: 91 (drawing by Christa Mlinar)



Design class 8A - rope border, twisted strand



Design class 8c - rope border, full "twisted" cable



Design class 9c - cobras confronted



Design class 9F - heraldic beasts

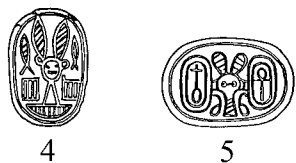


Plate 41

1. Keel 1996: Fig. 22
2. Keel 1996: Fig. 21
3. Keel 1995a: Fig. 486
4. Mlinar 2001, no. 304
5. Mlinar 2001, no. 603
6. Keel 1997: 109, no. 13
7. Keel 1997: 129, no. 75
8. Keel 1997: 287, no. 538
9. Keel 1997: 373, no. 789
10. Keel 1997: 385, no. 821
11. Keel 1997: 391, no. 839
12. Keel 1997: 221, no. 351
13. Keel 1997: 265, no. 475
14. Keel 1997: 317, no. 627
15. Keel 1997: 405, no. 884
16. Keel 1997: 417, no. 919
17. Keel 1997: 417, no. 921



Design class 10D2 - “Hathor” symbol



Dominant features of Egyptian Second Intermediate Period scarabs

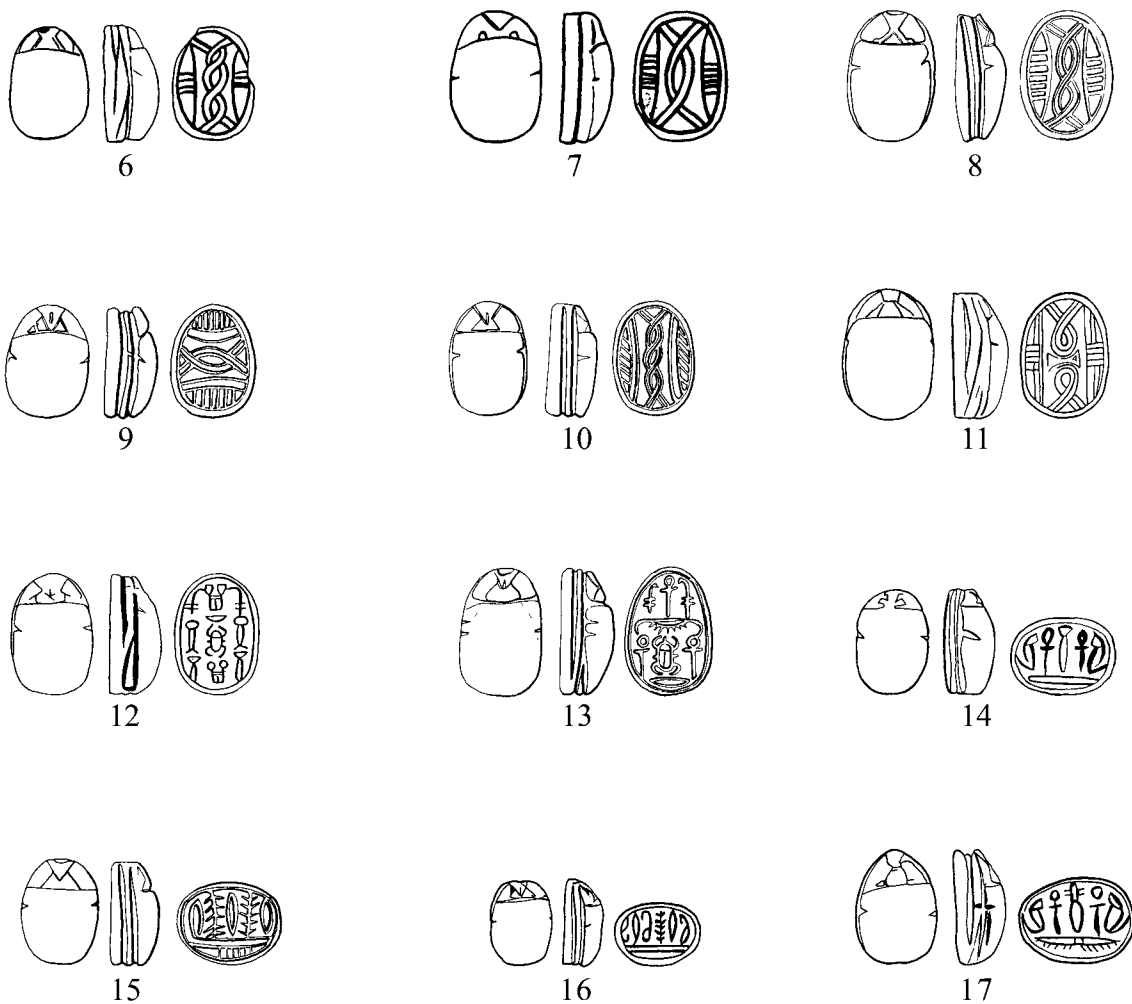
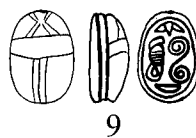
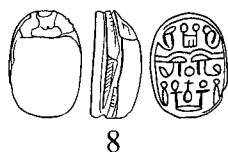
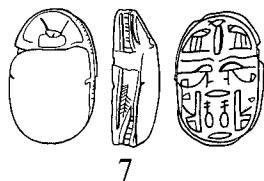
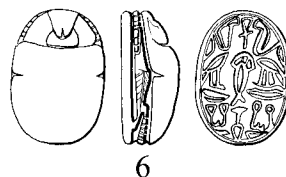
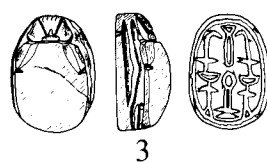
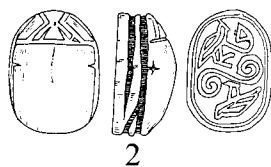
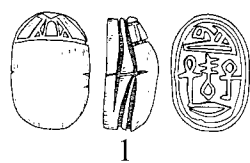


Plate 42

1. Mlinar 2004: Fig. 13a: 7
2. Mlinar 2004: Fig. 13a: 8
3. Mlinar 2004: Fig. 13b: 17
4. Keel 1997: 245, no. 415
5. Keel 1997: 245, no. 420
6. Keel 1997: 385, no. 822
7. Keel 1997: 477, no. 1090
8. Keel 1997: 479, no. 1093
9. Keel 1997: 107, no. 3
10. Keel 1997: 107, no. 5
11. Tufnell 1984: Pl. 64: 3521
12. Tufnell 1984: Pl. 64: 3522
13. Keel 1997: 211, no. 321
14. Keel 1997: 259, no. 458



Second Intermediate Period cowroids

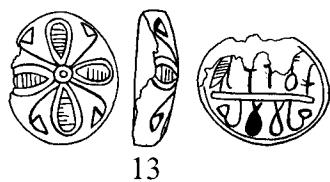
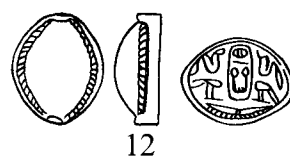
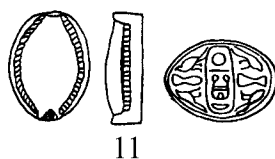
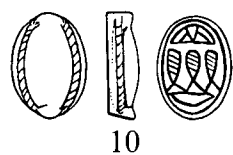


Plate 43

1. Tufnell 1984: Pl. 56: 3207
2. Hornung and Staehelin 1976: no. 141 (drawings of features by Christa Mlinar)
3. Tufnell 1984: Pl. 56: 3213
4. Tufnell 1984: Pl. 56: 3214
5. Tufnell 1984: Pl. 56: 3217
6. Tufnell 1984: Pl. 56: 3218
7. Tufnell 1984: Pl. 56: 3220
8. Tufnell 1984: Pl. 56: 3216
9. Tufnell 1984: Pl. 57: 3221
10. Tufnell 1984: Pl. 57: 3223
11. Newberry 1906: Pl. 23: 1
12. Ben-Tor and Bonfil 2002: Fig. 3: 11
13. Ben-Tor and Bonfil 2002: Fig. 3: 10
14. Tufnell 1984: Pl. 57: 3231
15. Tufnell 1984: Pl. 57: 3226
16. Tufnell 1984: Pl. 57: 3230
17. Ben-Tor and Bonfil 2002: Fig. 4: 6
18. Tufnell 1984: Pl. 57: 3225



Royal-name scarabs of Meruserre Yaqubhar

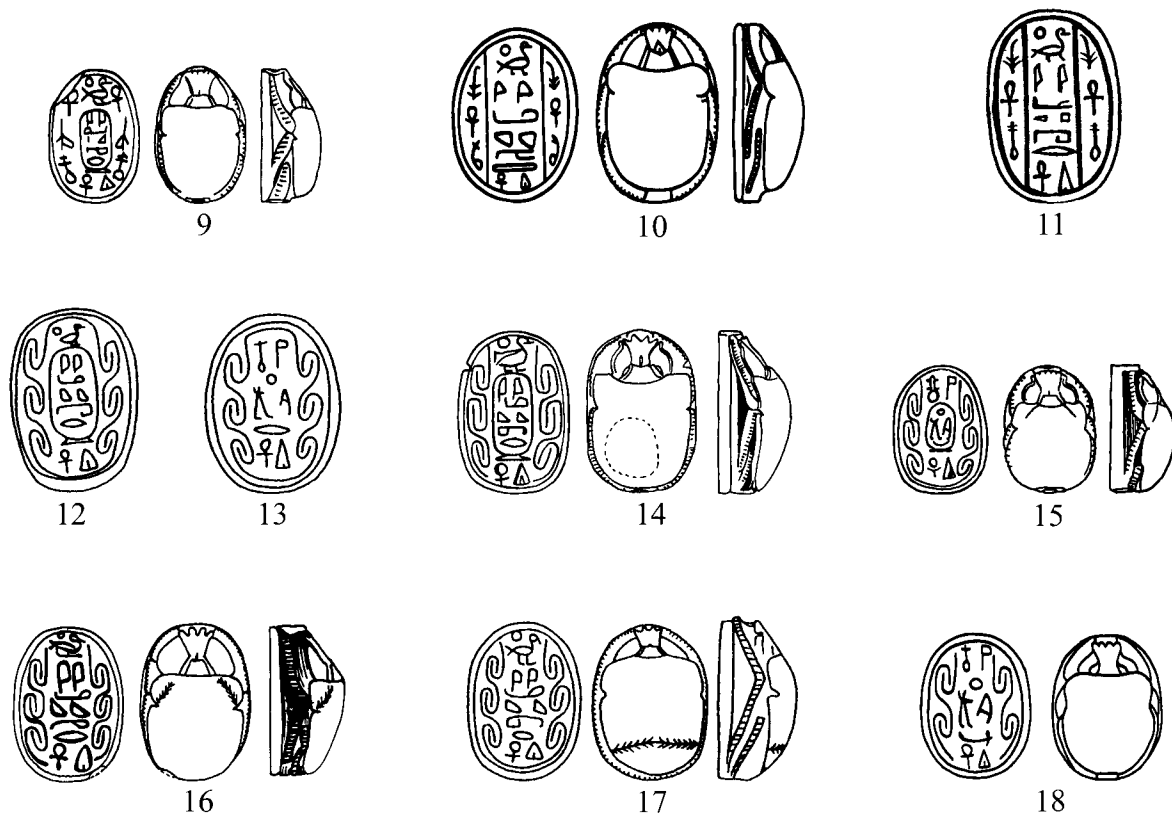
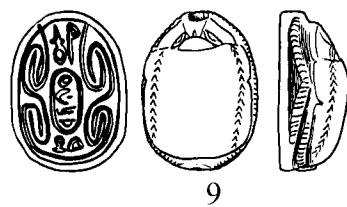
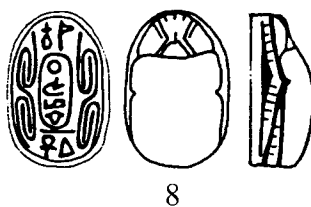
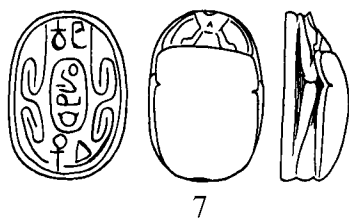
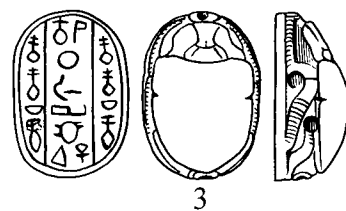
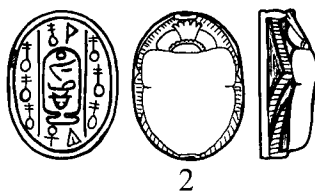
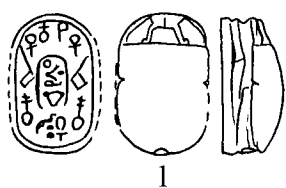


Plate 44

1. Tufnell 1984: Pl. 57: 3234
2. Tufnell 1984: Pl. 57: 3237
3. Tufnell 1984: Pl. 57: 3240
4. Newberry 1906: Pl. 21: 5
5. Matouk 1971: 180, no. 141B
6. Newberry 1907: Pl. 1: 36030
7. Tufnell 1984: Pl. 58: 3276
8. Hornung and Staehelin 1976: no. 146 (drawing of features by Christa Mlinar)
9. Tufnell 1984: Pl. 58: 3272
10. Matouk 1971: 180, no. 139
11. Tufnell 1984: Pl. 58: 3288
12. Tufnell 1984: Pl. 58: 3286
13. Tufnell 1984: Pl. 59: 3322
14. Tufnell 1984: Pl. 59: 3339
15. Tufnell 1984: Pl. 59: 3338
16. Tufnell 1984: Pl. 59: 3337
17. Tufnell 1984: Pl. 59: 3325
18. Tufnell 1984: Pl. 59: 3323



Royal-name scarabs of Sheshi

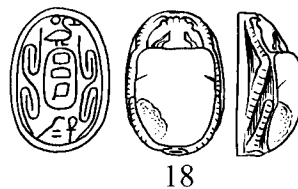
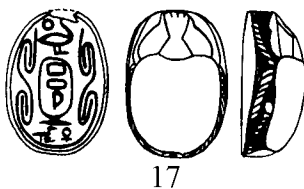
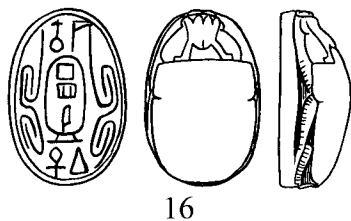
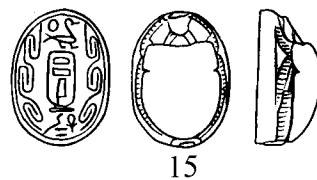
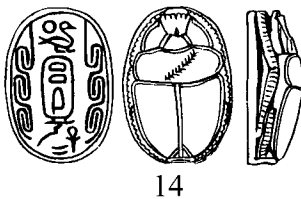
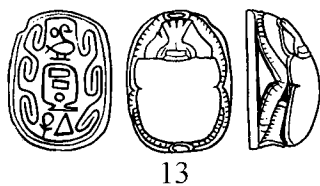
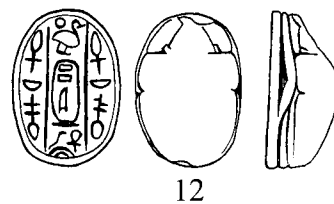
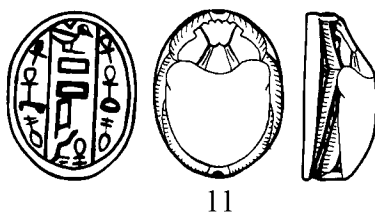
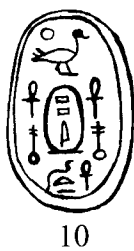
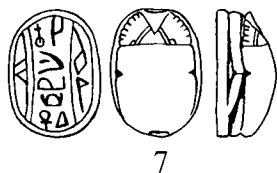
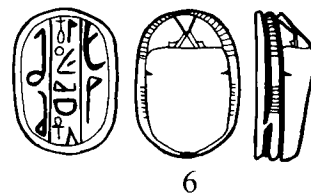
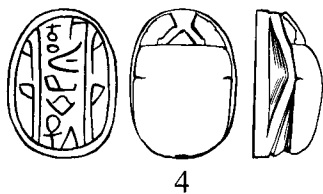
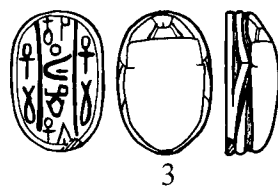
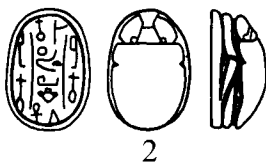
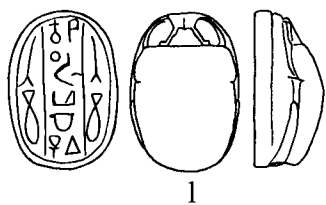


Plate 45

1. Tufnell 1984: Pl. 57: 3256
2. Tufnell 1984: Pl. 57: 3242
3. Tufnell 1984: Pl. 57: 3251
4. Tufnell 1984: Pl. 57: 3254
5. Newberry 1906: Pl. 21: 3
6. Tufnell 1984: Pl. 57: 3253
7. Tufnell 1984: Pl. 57: 3258
8. Tufnell 1984: Pl. 57: 3260
9. Tufnell 1984: Pl. 58: 3300
10. Tufnell 1984: Pl. 58: 3299
11. Tufnell 1984: Pl. 58: 3297
12. Tufnell 1984: Pl. 58: 3303
13. Tufnell 1984: Pl. 59: 3314
14. Tufnell 1984: Pl. 59: 3315
15. Tufnell 1984: Pl. 59: 3313
16. Tufnell 1984: Pl. 59: 3310



Rpyal-name scarabs of Sheshi

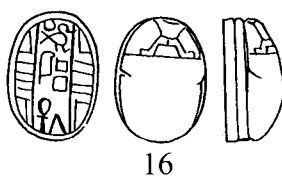
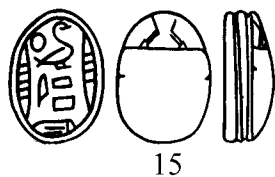
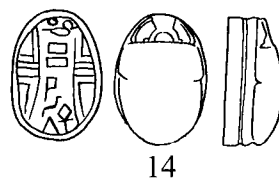
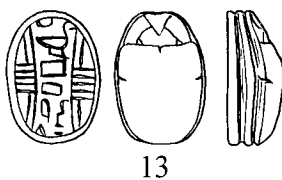
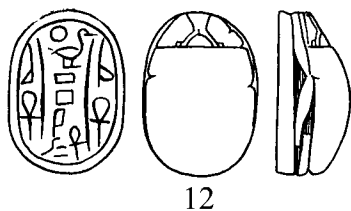
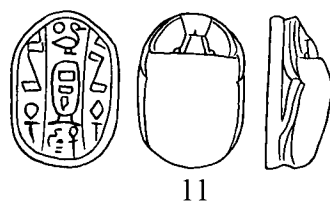
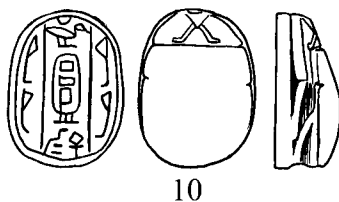
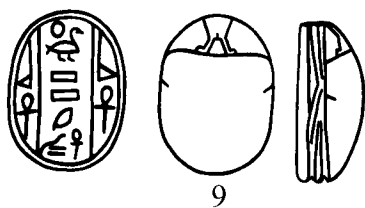
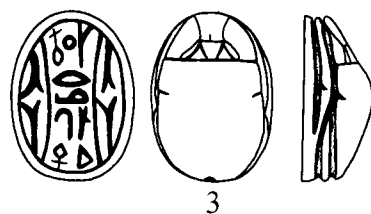
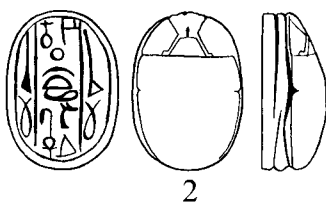
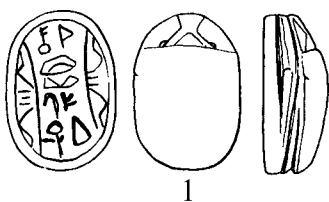


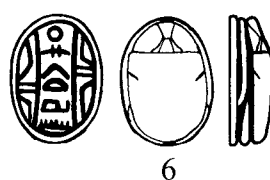
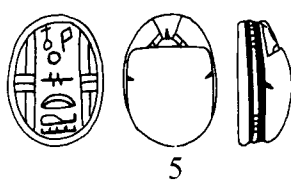
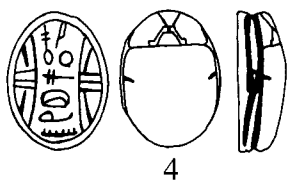
Plate 46

1. Tufnell 1984: Pl. 59: 3344
2. Tufnell 1984: Pl. 59: 3346
3. Tufnell 1984: Pl. 59: 3347
4. Tufnell 1984: Pl. 61: 3410
5. Tufnell 1984: Pl. 61: 3404
6. Tufnell 1984: Pl. 61: 3402
7. Tufnell 1984: Pl. 63: 3490
8. Tufnell 1984: Pl. 63: 3491
9. Tufnell 1984: Pl. 63: 3488
10. Tufnell 1984: Pl. 61: 3428
11. Tufnell 1984: Pl. 61: 3430
12. Tufnell 1984: Pl. 61: 3422
13. Tufnell 1984: Pl. 60: 3349
14. Tufnell 1984: Pl. 60: 3356
15. Tufnell 1984: Pl. 60: 3359
16. Tufnell 1984: Pl. 60: 3366
17. Tufnell 1984: Pl. 60: 3365
18. Tufnell 1984: Pl. 60: 3374

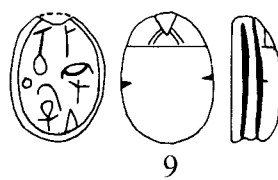
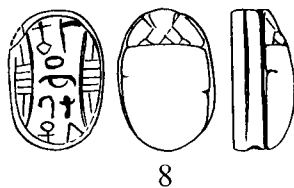
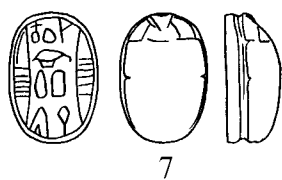
Khauserre



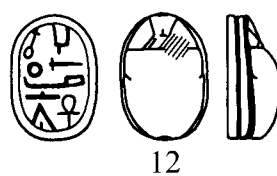
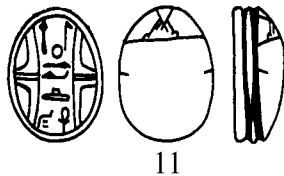
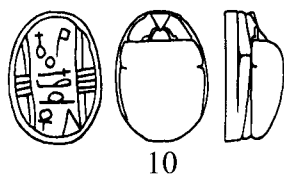
Sekhaenre



Nubuserre

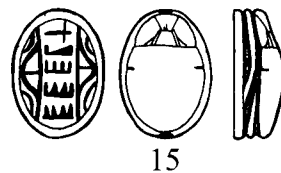
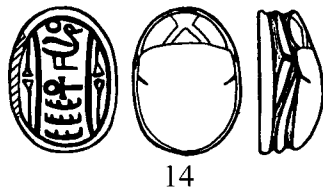
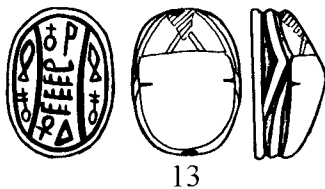


Ahetepre



Royal-name scarabs of group 3 bearing nomina

Amu



Ykbum

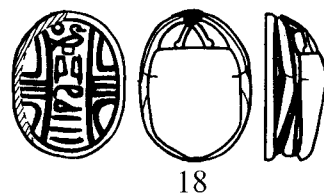
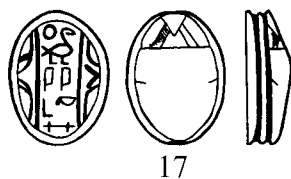
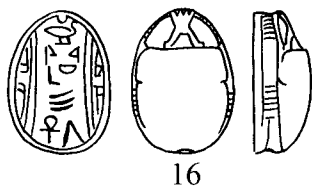
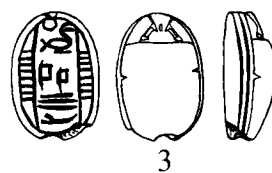
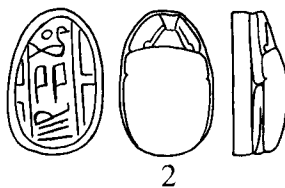
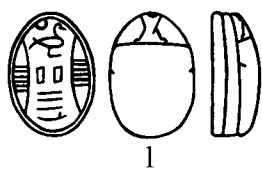


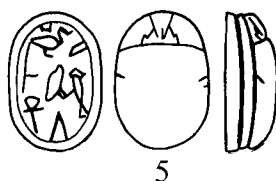
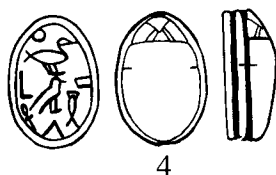
Plate 47

1. Tufnell 1984: Pl. 61: 3418
2. Tufnell 1984: Pl. 61: 3419
3. Tufnell 1984: Pl. 61: 3417
4. Tufnell 1984: Pl. 63: 3486
5. Tufnell 1984: Pl. 63: 3485
6. Tufnell 1984: Pl. 62: 3443
7. Tufnell 1984: Pl. 62: 3437
8. Tufnell 1984: Pl. 62: 3446
9. Tufnell 1984: Pl. 62: 3445
10. Tufnell 1984: Pl. 62: 3441
11. Tufnell 1984: Pl. 62: 3440
12. Tufnell 1984: Pl. 62: 3453
13. Tufnell 1984: Pl. 62: 3451
14. Tufnell 1984: Pl. 62: 3457
15. Tufnell 1984: Pl. 62: 3460

Y'amu



Qareh



Royal-name scarabs of Auserre Apophis

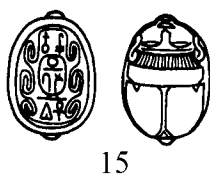
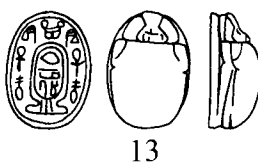
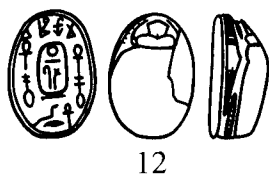
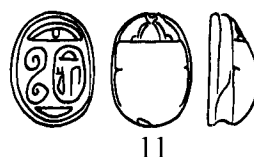
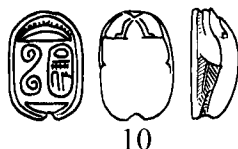
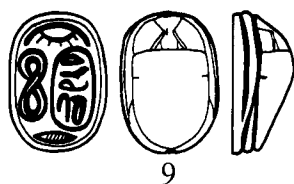
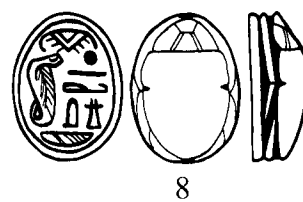
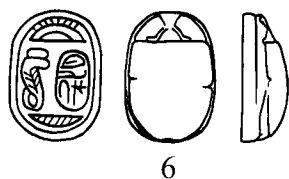
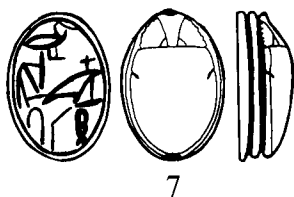
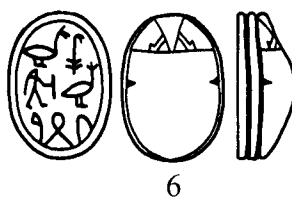
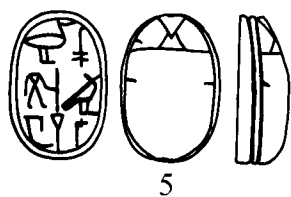
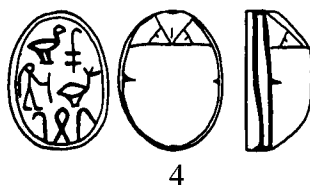
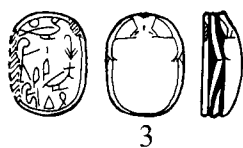
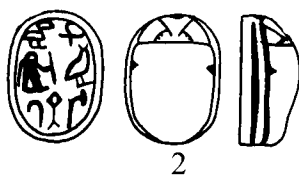
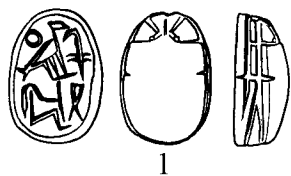


Plate 48

1. Tufnell 1984: Pl. 62: 3471
2. Tufnell 1984: Pl. 62: 3472
3. Tufnell 1984: Pl. 62: 3473
4. Tufnell 1984: Pl. 62: 3474
5. Tufnell 1984: Pl. 62: 3475
6. Tufnell 1984: Pl. 62: 3476
7. Tufnell 1984: Pl. 62: 3477
8. Martin 1971: Pl. 42A: 27
9. Newberry 1906: Pl. 23: 5
10. Newberry 1906: Pl. 23: 6
11. Tufnell 1984: Pl. 62: 3469



Scarabs of king Nehsy

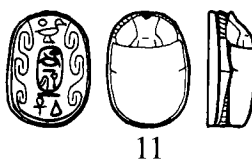
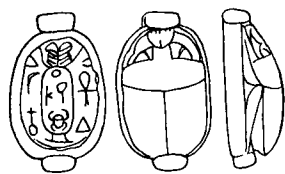
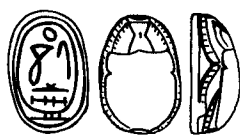


Plate 49

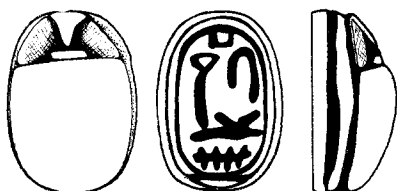
1. Tufnell 1984: Pl. 63: 3514
2. IMJ 76.31. 3881
3. MMA 22.1.314
4. MMA 22.1.335
5. MMA 09.180.1203
6. MMA 09.180.1204
7. Tufnell 1984: Pl. 56: 3202
8. Tufnell 1984: Pl. 56: 3203
9. IMJ 76.31.2173



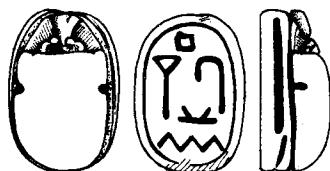
1



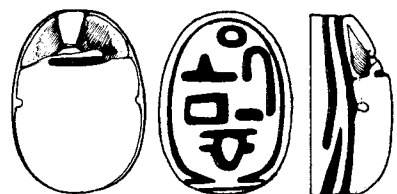
2



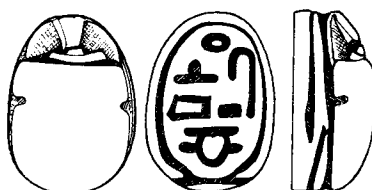
3



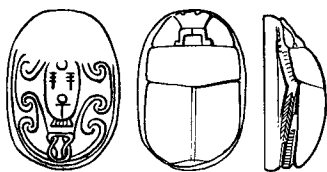
4



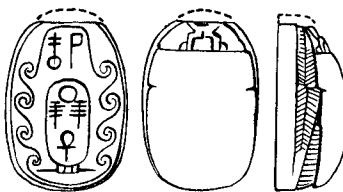
5



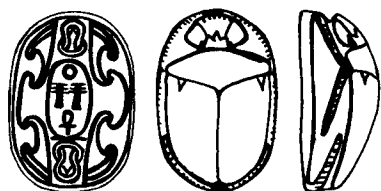
6



7



8

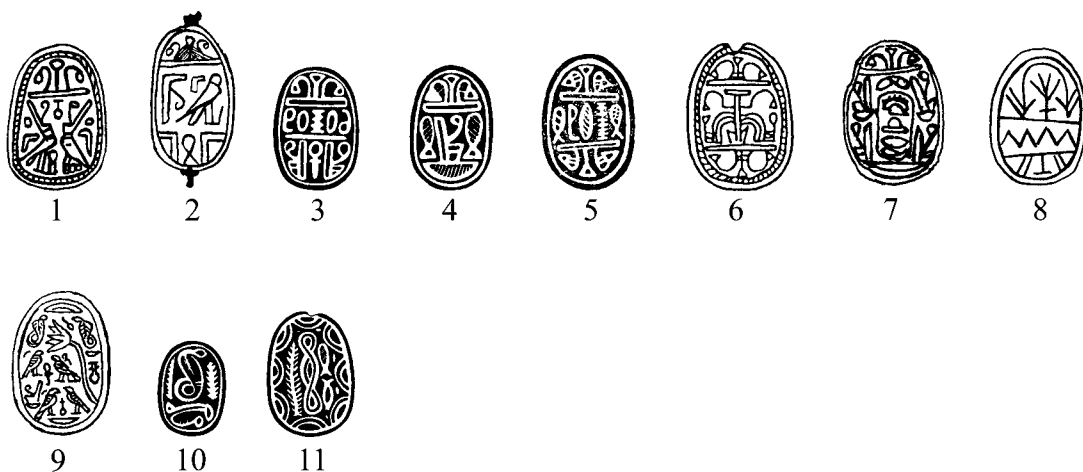


9

Canaanite Scarabs
of the Early Palestinian Series

Plate 50

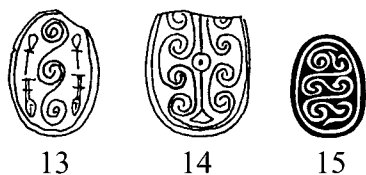
1. Kirkbride 1965: Fig. 286: 6
2. Kirkbride 1965: Fig. 293: 6
3. Tufnell 1973: Fig. 1: 18
4. Tufnell 1973: Fig. 2: 62
5. Tufnell 1984: Fig. 16: 6
6. Rishon Leziyyon 9/92 2854 (drawing by Christa Mlinar)
7. Gorzalczany, Ben-Tor, and Rand 2003: Fig. 4
8. Keel 1989: 227, no. 30
9. Kirkbride 1965: Fig. 282: 9
10. Tufnell 1973: Fig. 1: 4
11. Tufnell 1973: Fig. 1: 39
12. Ward and Dever 1994: Fig. 5:1a: 2
13. After Grant 1929: 89, 2nd row, 2nd from the left (drawing by Christa Mlinar)
14. After Grant 1929: 89, bottom row, 2nd from the right (drawing by Christa Mlinar)
15. Tufnell 1973: Fig. 1: 31
16. Kirkbride 1965: Fig. 285: 5
17. Kirkbride 1965: Fig. 286: 11
18. Tufnell 1984: Fig. 16: 7
19. Ward and Dever 1994: Fig. 5:1a: 4
20. Rishon Leziyyon 9/92 2854 (drawing by Christa Mlinar)
21. Kirkbride 1965: Fig. 282: 1
22. Kirkbride 1965: Fig. 282: 17
23. Kirkbride 1965: Fig. 282: 21
24. Kirkbride 1965: Fig. 282: 24
25. Kirkbride 1965: Fig. 283: 8
26. Kirkbride 1965: Fig. 283: 19
27. Kirkbride 1965: Fig. 283: 20
28. Kirkbride 1965: Fig. 285: 6
29. Kirkbride 1965: Fig. 285: 10



Design class 2A - scrolls and spirals, unlinked



Design class 2B - scrolls and spirals, interlocking

Design class 3A1 - sign of union (*sm3 t3wy*)

Design class 3A3 - varia

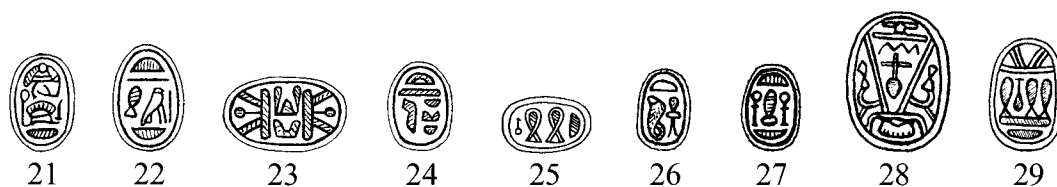


Plate 51

1. Kirkbride 1965: Fig. 285: 18
2. Kirkbride 1965: Fig. 286: 7
3. Kirkbride 1965: Fig. 286: 19
4. Kirkbride 1965: Fig. 292: 5
5. Kirkbride 1985: Fig. 292: 10
6. Tufnell 1973: Fig. 1: 3
7. Tufnell 1973: Fig. 1: 7
8. Tufnell 1973: Fig. 1: 24
9. Tufnell 1973: Fig. 1: 29
10. Tufnell 1973: Fig. 1: 25
11. Tufnell 1973: Fig. 1: 23
12. Tufnell 1975: Fig. 1: 26
13. Tufnell 1973: Fig. 1: 27
14. Tufnell 1973: Fig. 2: 54
15. Tufnell 1973: Fig. 2: 57
16. Tufnell 1973: Fig. 2: 72
17. Tufnell 1973: Fig. 2: 79
18. After Guy 1938: Pl. 105: 14 (drawing by Christa Mlinar)
19. Tufnell 1984: Fig. 16: 1
20. Tufnell 1984: Fig. 16: 14
21. Tufnell 1984: Fig. 16: 15
22. Tufnell 1984: Fig. 16: 16
23. Rishon Leziyyon 9/92 2031 (drawing by Christa Mlinar)
24. Rishon Leziyyon 9/92 3116 (drawing by Christa Mlinar)
25. Rishon Leziyyon 9/92 2184 (drawing by Christa Mlinar)
26. Rishon Leziyyon 9/92 3127 (drawing by Christa Mlinar)
27. Rishon Leziyyon 9/92 2099 (drawing by Christa Mlinar)
28. Rishon Leziyyon 9/92 2894 (drawing by Christa Mlinar)
29. Rishon Leziyyon 9/92 2895 (drawing by Christa Mlinar)
30. Rishon Leziyyon 9/92 2860 (drawing by Christa Mlinar)
31. Rishon Leziyyon 9/92 2645 (drawing by Christa Mlinar)
32. Rishon Leziyyon 9/92 2790 (drawing by Christa Mlinar)
33. Rishon Leziyyon 9/92 2784 (drawing by Christa Mlinar)
34. Rishon Leziyyon 9/92 2958 (drawing by Christa Mlinar)
35. Rishon Leziyyon 9/92 3206 (drawing by Christa Mlinar)
36. Rishon Leziyyon 9/92 2573/3/a (drawing by Christa Mlinar)
37. After Grant 1929: 89, 3rd row 1st from the left (drawing by Christa Mlinar)
38. Giveon 1978b: Fig. 42: 4
39. Ward and Dever 1994: Fig. 5: 1a: 3
40. Tufnell 1984: Fig. 17: 27
41. Tufnell 1984: Fig. 17: 30
42. Tufnell 1984: Fig. 17: 31
43. Tufnell 1984: Fig. 17: 32
44. Mizrachy in Kempinski 2002: Fig. 9.2: 4
45. Mizrachy in Kempinski 2002: Fig. 9.2: 5
46. Mizrachy in Kempinski 2002: Fig. 9.2: 11
47. Keel 1997: 267, no. 485
48. Keel 1997: 375, no. 794
49. Keel 1997: 419, no. 923
50. Keel 1997: 489, no. 1125
51. Keel 1997: 495, no. 1147
52. Amiet et al. 1996: Pl. 7: 31
53. Macalister 1912: Pl. 204b: 14
54. Giveon 1985: 129, no. 55
55. Horn 1962: Fig. 1: 7
56. Horn 1962: Fig. 2: 26
57. Grant 1932: Pl. 51: 32
58. Prichard 1963: Fig. 70: 14
59. Tufnell 1958: Pl. 34: 186
60. Kirkbride 1965: Fig. 283: 11
61. Kirkbride 1965: Fig. 287: 3

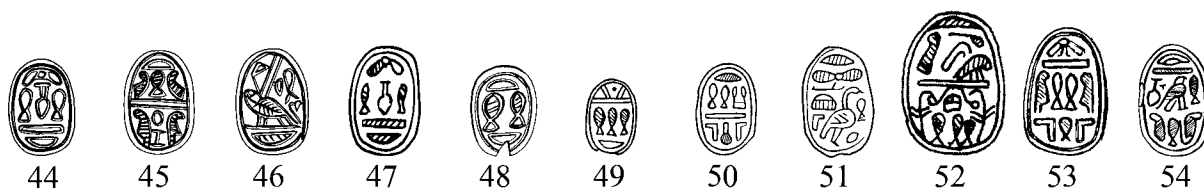
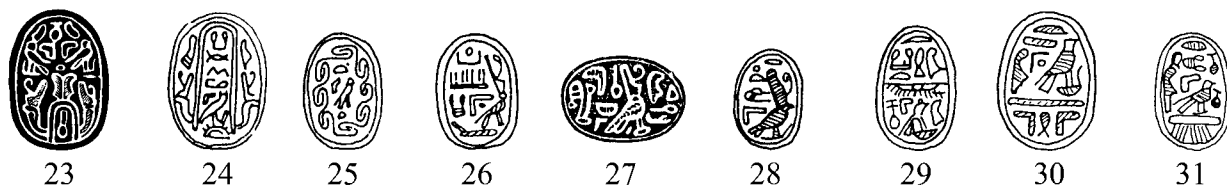


Plate 52

1. Kirkbride 1965: Fig. 282: 5
2. Kirkbride 1965: Fig. 282: 6
3. Kirkbride 1965: Fig. 282: 7
4. Kirkbride 1965: Fig. 282: 18
5. Kirkbride 1965: Fig. 282: 22
6. Kirkbride 1965: Fig. 283: 9
7. Kirkbride 1965: Fig. 284: 3
8. Kirkbride 1965: Fig. 286: 6
9. Kirkbride 1965: Fig. 292: 7
10. Kirkbride 1965: Fig. 292: 9
11. Kirkbride 1965: Fig. 293: 4
12. Kirkbride 1965: Fig. 293: 6
13. Tufnell 1973: Fig. 1: 1
14. Tufnell 1973: Fig. 1: 8
15. Tufnell 1973: Fig. 1: 9
16. Tufnell 1973: Fig. 1: 11
17. Tufnell 1973: Fig. 1: 17
18. Tufnell 1973: Fig. 3: 125
19. Tufnell 1973: Fig. 1: 12
20. Tufnell 1973: Fig. 1: 48
21. Tufnell 1973: Fig. 2: 58
22. Tufnell 1973: Fig. 2: 75
23. Tufnell 1973: Fig. 2: 78
24. Rishon Leziyyon 9/92 2558 (drawing by Christa Mlinar)
25. Rishon Leziyyon 9/92 2404 (drawing by Christa Mlinar)
26. Rishon Leziyyon 9/92 3092 (drawing by Christa Mlinar)
27. Tufnell 1984: Fig. 16: 17
28. After Grant 1929: 89, 3rd row 2nd from the left (drawing by Christa Mlinar)
29. `Ain Samiya, unpublished (drawing by Christa Mlinar)
30. `Ain Samiya, unpublished (drawing by Christa Mlinar)
31. `Ain Samiya, unpublished (drawing by Christa Mlinar)
32. `Ain Samiya, unpublished (drawing by Christa Mlinar)
33. `Ain Samiya, unpublished (drawing by Christa Mlinar)
34. Kirkbride 1965: Fig. 291: 12
35. Amiet et al. 1996: Pl. 7: 33
36. Keel 1997: 101, no. 2
37. Keel 1997: 102, no. 7
38. Keel 1997: 613, no. 235
39. Macalister 1912: Pl. 206: 47
40. Macalister 1912: Pl. 207: 5
41. Kirkbride 1965: Fig. 282: 5
42. Kirkbride 1965: Fig. 282: 6
43. Kirkbride 1965: Fig. 282: 8
44. Kirkbride 1965: Fig. 282: 19
45. Kirkbride 1965: Fig. 283: 7
46. Kirkbride 1965: Fig. 283: 13
47. Kirkbride 1965: Fig. 283: 23
48. Kirkbride 1965: Fig. 286: 18
49. Kirkbride 1965: Fig. 288: 12
50. Kirkbride 1965: Fig. 292: 15
51. Kirkbride 1965: Fig. 293: 8
52. Tufnell 1973: Fig. 1: 17
53. Tufnell 1973: Fig. 1: 20
54. Tufnell 1973: Fig. 1: 45
55. Tufnell 1973: Fig. 1: 48
56. Tufnell 1975: Fig. 2: 53
57. Tufnell 1973: Fig. 2: 75
58. Tufnell 1973: Fig. 2: 78
59. Tufnell 1973: Fig. 3: 119



Design class 3B1a - cobras addorsed, 3B1b - addorsed and linked, 3B1d - addorsed linked and crowned



Plate 53

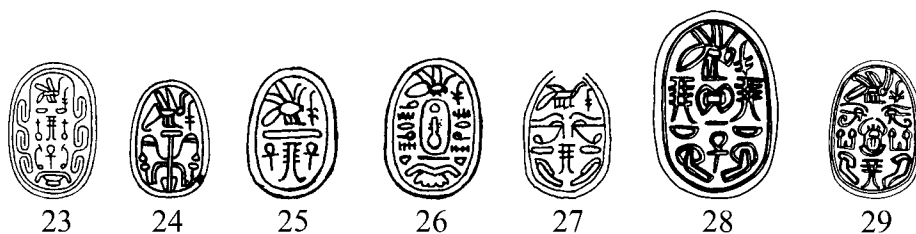
1. Rishon Leziyyon 9/92 2558 (drawing by Christa Mlinar)
2. Rishon Leziyyon 9/92 3176 (drawing by Christa Mlinar)
3. Rishon Leziyyon 94/91 314 (drawing by Christa Mlinar)
4. Giveon 1978b: 85, Fig. 42: 3
5. `Ain Samiya, unpublished (drawing by Christa Mlinar)
6. Tufnell 1973: Fig. 2: 88
7. Macalister 1912: Pl. 203a: 19
8. Macalister 1912: Pl. 206: 50
9. Giveon 1985: 129, no. 55
10. Prichard 1963: Fig. 71: 11
11. Keel 1997: 263, no. 469
12. Keel 1997: 397, no. 856
13. Keel 1997: 479, no. 1095
14. Kirkbride 1965: Fig. 282: 9
15. Kirkbride 1965: Fig. 283: 12
16. Kirkbride 1965: Fig. 288: 8
17. Tufnell 1973: Fig. 1: 43
18. After Guy 1938: Pl. 106: 3 (drawing by Christa Mlinar)
19. Tufnell 1984: Fig. 16: 3
20. Tufnell 1984: Fig. 17: 25
21. Kirkbride 1965: Fig. 294: 13
22. Keel 1997: 235, no. 391
23. Kirkbride 1965: Fig. 285: 12
24. Kirkbride 1965: Fig. 286: 11
25. Kirkbride 1965: Fig. 287: 5
26. Kirkbride 1965: Fig. 287: 9
27. Kirkbride 1965: Fig. 288: 10
28. Mizrahi in Kempinski 2002: Fig. 9.1: 1
29. Keel 1997: 91: 32
30. Kirkbride 1965: Fig. 282: 4
31. Kirkbride 1965: Fig. 282: 8
32. Tufnell 1973: Fig. 1: 38
33. Gorzalczany, Ben-Tor, and Rand 2003: Fig. 4
34. Amiet et al. 1996: Pl. 5: 5
35. Kirkbride 1965: Fig. 282: 23
36. Kirkbride 1965: Fig. 283: 12
37. Kirkbride 1965: Fig. 285: 13
38. Kirkbride 1965: Fig. 285: 17
39. Kirkbride 1965: Fig. 288: 7
40. Kirkbride 1965: Fig. 288: 8
41. Kirkbride 1965: Fig. 292: 14
42. Kirkbride 1965: Fig. 293: 9
43. Kirkbride 1965: Fig. 293: 10
44. Kirkbride 1965: Fig. 293: 16



Design class 3B1c - cobras confronted



Design class 3B2 - king of upper and lower Egypt



Design class 3B3 - red crowns

Type a



Type b



Plate 54

1. Tufnell 1973: Fig. 1: 11
2. Tufnell 1973: Fig. 1: 15
3. Tufnell 1973: Fig. 1: 18
4. Tufnell 1973: Fig. 1: 21
5. Tufnell 1973: Fig. 1: 42
6. Tufnell 1973: Fig. 1: 43
7. Tufnell 1973: Fig. 3: 115
8. After Guy 1938: Pl. 106: 8 (drawing by Christa Mlinar)
9. After Guy 1938: Pl. 106: 14 (drawing by Christa Mlinar)
10. Tufnell 1984: Fig. 16: 2
11. Tufnell 1984: Fig. 16: 3
12. Tufnell 1984: Fig. 16: 4
13. Tufnell 1984: Fig. 16: 11
14. Gorzalczany, Ben-Tor, and Rand 2003: Fig. 4
15. Tufnell 1984: Fig. 17: 25
16. Mizrahi in Kempinski 2002: Fig. 9.2: 9
17. `Ain Samiya, unpublished (drawing by Christa Mlinar)
18. Prichard 1963: Fig. 70: 21
19. Tufnell 1958: Pl. 30: 48
20. Ben-Tor 1997: Fig. 9: 1
21. Kirkbride 1965: Fig. 286: 7
22. Kirkbride 1965: Fig. 286: 18
23. Kirkbride 1965: Fig. 293: 6
24. Tufnell 1973: Fig. 1: 20
25. Tufnell 1984: Fig. 16: 15
26. Rishon Leziyyon 94/91 308 (drawing by Christa Mlinar)
27. Rishon Leziyyon 9/92 2573/1 (drawing by Christa Mlinar)
28. Keel 1997: 351, no. 723
29. Keel 1997: 439, no. 984
30. Kirkbride 1965: Fig. 293: 2
31. Kirkbride 1965: Fig. 293: 7
32. After Guy 1938: Pl. 106: 7 (drawing by Christa Mlinar)
33. Tufnell 1984: Fig. 16: 10
34. Kirkbride 1965: Fig. 283: 23
35. Kirkbride 1965: Fig. 285: 11
36. Kirkbride 1965: Fig. 288: 10
37. After Guy 1938: Pl. 106: 14 (drawing by Christa Mlinar)

Type b



Type c



Type d



Type e

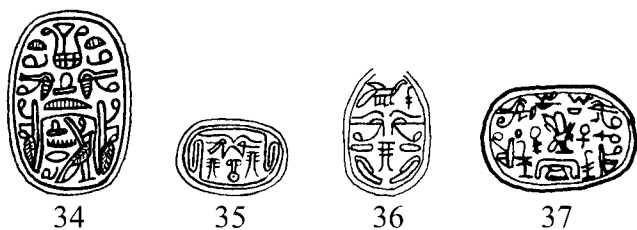
Design class 3B4 - Horus eyes (*wd3t*)

Plate 55

1. Kirkbride 1965: Fig. 286: 13
2. Tufnell 1973: Fig. 1: 37
3. After Guy 1938: Pl. 106: 2 (drawing by Christa Mlinar)
4. After Guy 1938: Pl. 106: 14 (drawing by Christa Mlinar)
5. Kirkbride 1965: Fig. 286: 10
6. Kirkbride 1965: Fig. 286: 17
7. Kirkbride 1965: Fig. 287: 2
8. Kirkbride 1965: Fig. 287: 7
9. Kirkbride 1965: Fig. 288: 7
10. Tufnell 1973: Fig. 2: 76
11. After Guy 1938: Pl. 106: 3 (drawing by Christa Mlinar)
12. After Guy 1938: Pl. 106: 7 (drawing by Christa Mlinar)
13. After Guy 1938: Pl. 106: 14 (drawing by Christa Mlinar)
14. Kirkbride 1965: Fig. 288: 10
15. Keel 1997: 91, no. 32
16. Mizrachy in Kempinski 2002: Fig. 9.1: 1
17. Kirkbride 1965: Fig. 287: 10
18. Kirkbride 1965: Fig. 282: 8
19. Kirkbride 1965: Fig. 282: 16
20. Kirkbride 1965: Fig. 282: 19
21. Kirkbride 1965: Fig. 282: 20
22. Kirkbride 1965: Fig. 283: 23
23. Kirkbride 1965: Fig. 285: 9
24. Kirkbride 1965: Fig. 285: 14
25. Kirkbride 1965: Fig. 185: 15
26. Kirkbride 1965: Fig. 285: 16
27. Kirkbride 1965: Fig. 285: 17
28. Kirkbride 1965: Fig. 285: 19
29. Kirkbride 1965: Fig. 286: 12
30. Kirkbride 1965: Fig. 286: 13
31. Kirkbride 1965: Fig. 286: 18
32. Kirkbride 1965: Fig. 287: 1
33. Kirkbride 1965: Fig. 287: 9
34. Kirkbride 1965: Fig. 288: 12

Design class 3B6 - gold sign (*nbw*) in longitudinal settingDesign class 3B7 - forepart of lion (*h3t*)

Design class 3B8 - group of three signs comprising the name Ptah



Design class 3C - formulae



Plate 56

1. Kirkbride 1965: Fig. 292: 14
2. Kirkbride 1965: Fig. 293: 3
3. Kirkbride 1965: Fig. 293: 7
4. Kirkbride 1965: Fig. 293: 10
5. Tufnell 1973: Fig. 1: 2
6. Tufnell 1973: Fig. 1: 12
7. Tufnell 1973: Fig. 1: 18
8. Tufnell 1973: Fig. 1: 22
9. Tufnell 1973: Fig. 1: 29
10. Tufnell 1973: Fig. 1: 42
11. Tufnell 1973: Fig. 1: 45
12. Tufnell 1973: Fig. 1: 47
13. Tufnell 1973: Fig. 2: 58
14. Tufnell 1973: Fig. 2: 74
15. After Guy 1938: Pl. 105: 2 (drawing by Christa Mlinar)
16. After Guy 1938: Pl. 106: 1 (drawing by Christa Mlinar)
17. After Guy 1938: Pl. 106: 4 (drawing by Christa Mlinar)
18. Tufnell 1984: Fig. 16: 2
19. Tufnell 1984: Fig. 16: 4
20. Tufnell 1984: Fig. 16: 5
21. Tufnell 1984: Fig. 16: 6
22. Tufnell 1984: Fig. 16: 8
23. Tufnell 1984: Fig. 16: 12
24. Tufnell 1984: Fig. 16: 18
25. Rishon Leziyyon 9/92 2792 (drawing by Christa Mlinar)
26. Rishon Leziyyon 9/92 2558 (drawing by Christa Mlinar)
27. Rishon Leziyyon 9/92 2630 (drawing by Christa Mlinar)
28. Rishon Leziyyon 9/92 2626 (drawing by Christa Mlinar)
29. Rishon Leziyyon 9/92 2905 (drawing by Christa Mlinar)
30. Rishon Leziyyon 9/92 3176 (drawing by Christa Mlinar)
31. Rishon Leziyyon 9/92 2999 (drawing by Christa Mlinar)
32. Giveon 1978b: Fig. 42: 2
33. Gorzalczany, Ben-Tor, and Rand 2003: Fig. 4
34. Gorzalczany, Ben-Tor, and Rand 2003: Fig. 5
35. Tufnell 1984: Fig. 17: 29
36. Tufnell 1984: Fig. 17: 30
37. Kirkbride 1965: Fig. 290: 20
38. Kirkbride 1965: Fig. 294: 13
39. Kirkbride 1965: Fig. 294: 14
40. Tufnell 1973: Fig. 2: 64
41. Macalister 1912: Pl. 206: 50
42. Tufnell 1958: Pl. 32: 135
43. Keel 1997: 239, no. 402
44. Keel 1997: 397, no. 856
45. Keel 1997: 415, no. 911
46. Keel 1997: 437, no. 981
47. Keel 1997: 479, no. 1097

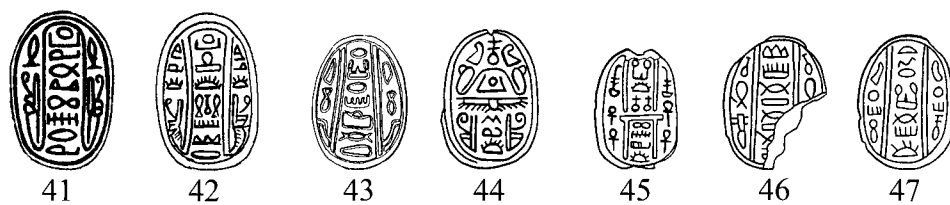
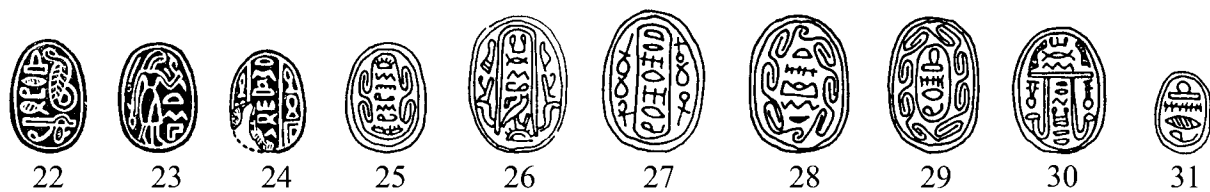
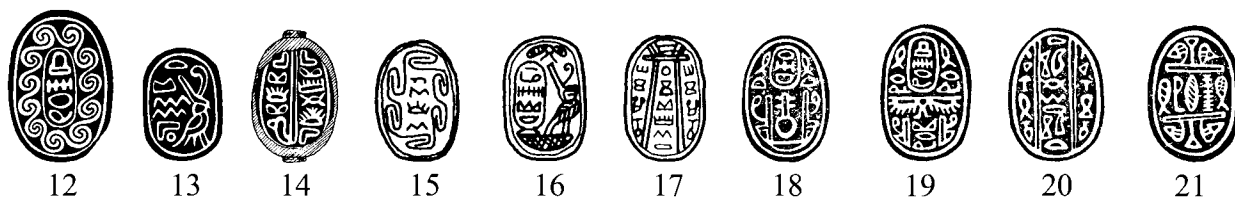
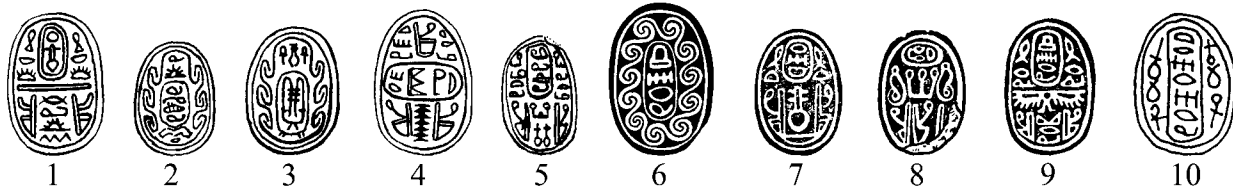


Plate 57

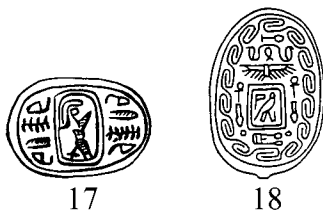
1. Kirkbride 1965: Fig. 285: 17
2. Kirkbride 1965: Fig. 287: 1
3. Kirkbride 1965: Fig. 287: 8
4. Kirkbride 1965: Fig. 292: 14
5. Kirkbride 1965: Fig. 293: 10
6. Tufnell 1973: Fig. 1: 47
7. Tufnell 1984: Fig. 16: 2
8. Tufnell 1984: Fig. 16: 3
9. Tufnell 1984: Fig. 16: 4
10. Rishon Leziyyon 9/92 2630 (drawing by Christa Mlinar)
11. Rishon Leziyyon 9/92 2905 (drawing by Christa Mlinar)
12. Rishon Leziyyon 94/91 314 (drawing by Christa Mlinar)
13. Gorzalczany, Ben-Tor, and Rand 2003: Fig. 4.
14. Kirkbride 1965: Fig. 282: 8
15. Kirkbride 1965: Fig. 287: 9
16. After Guy 1938: Pl. 106: 1 (drawing by Christa Mlinar)
17. Keel 1997: 155, no. 151
18. Keel 1997: 383, no. 820
19. Kirkbride 1965: Fig. 285: 14
20. Kirkbride 1965: Fig. 289: 11
21. Tufnell 1973: Fig. 1: 37
22. Tufnell 1973: Fig. 1: 45
23. Tufnell 1973: Fig. 3: 117
24. Tufnell 1984: Fig. 16: 5
25. Tufnell 1984: Fig. 16: 18
26. Tufnell 1984: Fig. 17: 29
27. Amiet et al. 1996: Pl. 6: 22
28. Kirkbride 1965: Fig. 294: 14
29. Macalister 1912: Pl. 203a: 19
30. Tufnell 1958: Pl. 30: 26
31. Keel 1997: 239, no. 402
32. Keel 1997: 437, no. 981
33. Keel 1997: 479, no. 1097
34. Keel 1997: 503, no. 1172



Design class 3D2 - cartouches, actual cartouches



Design class 3D3 - cartouches, varia



Design class 3E1 - panels, three or more signs in margins

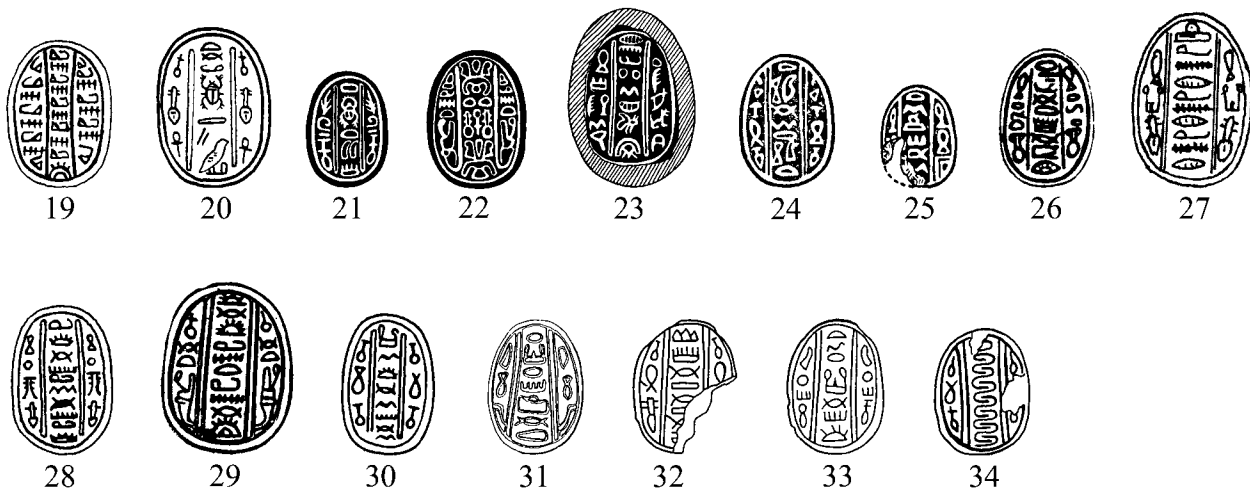
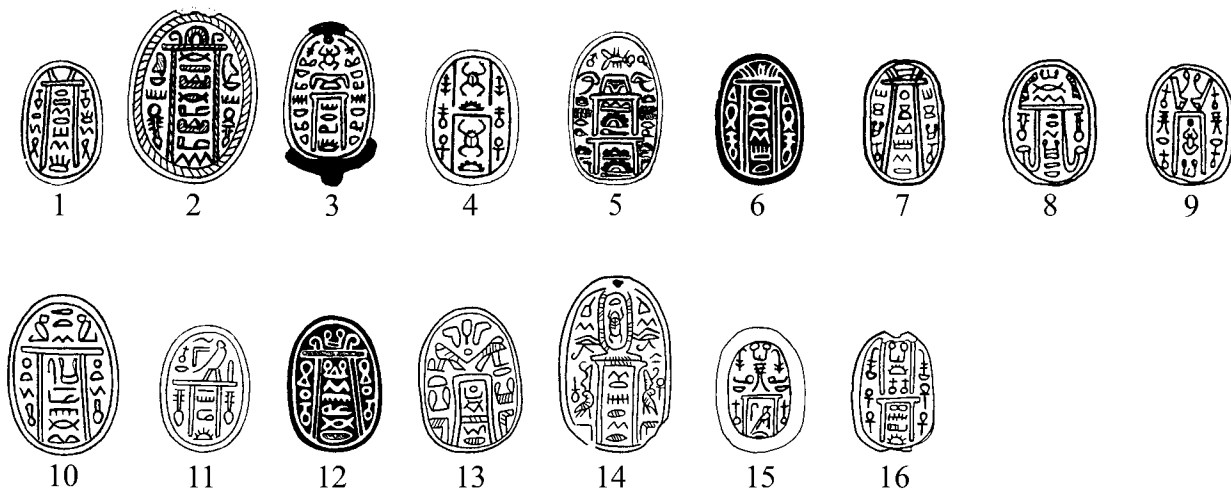


Plate 58

1. Kirkbride 1965: Fig. 285: 16
2. Kirkbride 1965: Fig. 286: 12
3. Kirkbride 1965: Fig. 286: 13
4. Kirkbride 1965: Fig. 292: 8
5. Kirkbride 1965: Fig. 292: 12
6. Tufnell 1973: Fig. 1: 22
7. After Guy 1938: Pl. 106: 4 (drawing by Christa Mlinar)
8. Rishon Leziyyon 9/92 3176 (drawing by Christa Mlinar)
9. Ben-Tor 1997: Fig. 9: 1
10. Kirkbride 1965: Fig. 294: 13
11. Kirkbride 1965: Fig. 296: 11
12. Tufnell 1973: Fig. 2: 64
13. Keel 1997: 319, no. 638
14. Keel 1997: 351, no. 728
15. Keel 1997: 385, no. 824
16. Keel 1997: 415, no. 911
17. Rishon Leziyyon 9/92 2534 (drawing by Christa Mlinar)
18. Rishon Leziyyon 9/92 2535 (drawing by Christa Mlinar)
19. Keel 1989: 47, Fig. 16
20. Keel 1989: 47, Fig. 17
21. Keel 1989: 47, Fig. 18
22. Keel 1989: 47, Fig. 19
23. Keel 1989: 51, Fig. 22
24. Keel 1989: 53, Fig. 24
25. Keel 1989: 53, Fig. 25
26. Keel 1989: 53, Fig. 26
27. Keel 1989: 53, Fig. 27
28. Keel 1989: 53, Fig. 28
29. Keel 1989: 53, Fig. 29
30. Kirkbride 1965: Fig. 282: 13
31. Kirkbride 1965: Fig. 283: 1
32. Kirkbride 1965: Fig. 283: 14
33. Kirkbride 1965: Fig. 283: 15
34. Kirkbride 1965: Fig. 285: 4
35. Kirkbride 1965: Fig. 285: 7
36. Kirkbride 1965: Fig. 289: 2
37. Kirkbride 1965: Fig. 289: 4
38. Kirkbride 1965: Fig. 293: 1
39. Tufnell 1973: Fig. 1: 44
40. Tufnell 1973: Fig. 2: 70
41. Tufnell 1973: Fig. 2: 80
42. After Guy 1938: Pl. 105: 4 (drawing by Christa Mlinar)
43. Tufnell 1984: Fig. 16: 19
44. Tufnell 1984: Fig. 16: 20
45. Tufnell 1984: Fig. 16: 22
46. Tufnell 1984: Fig. 16: 23
47. After Grant 1929: 89, 5th row 2nd from the left (drawing by Christa Mlinar)
48. Rishon Leziyyon 9/92 2596 (drawing by Christa Mlinar)
49. Rishon Leziyyon 9/92 2863 (drawing by Christa Mlinar)
50. Rishon Leziyyon 9/92 2849 (drawing by Christa Mlinar)



Design class 3F - the Omega group



Design class 4 - concentric circles

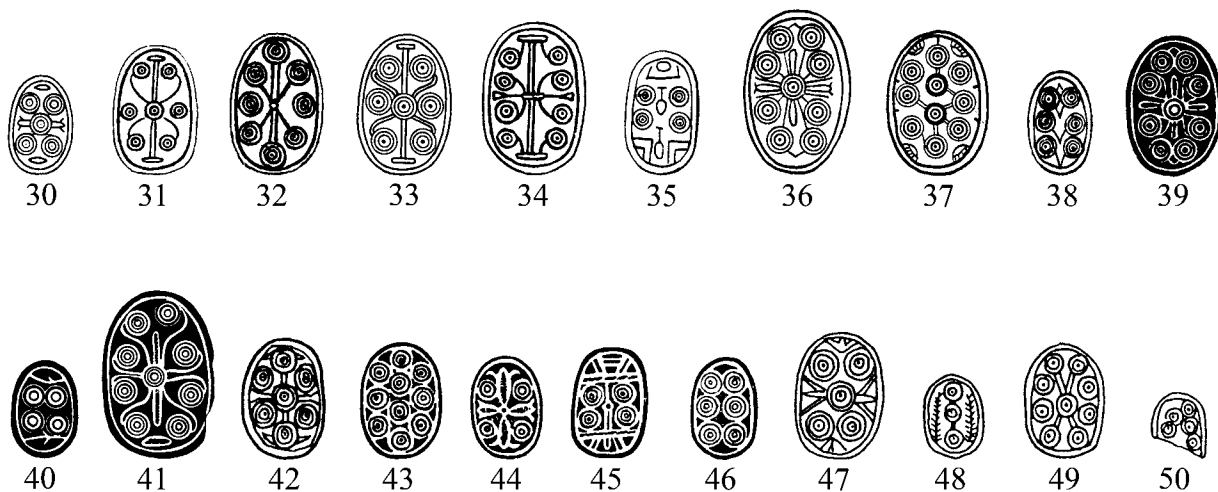
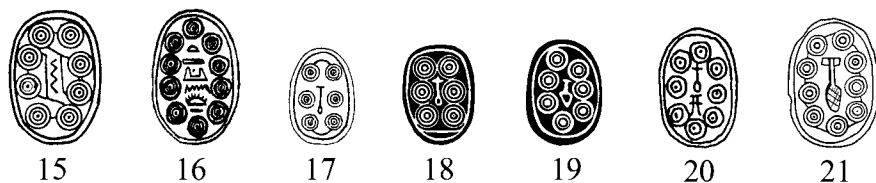
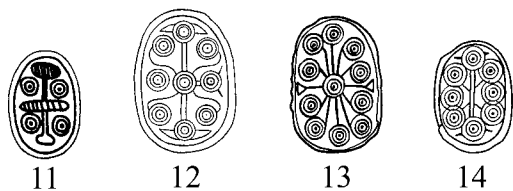
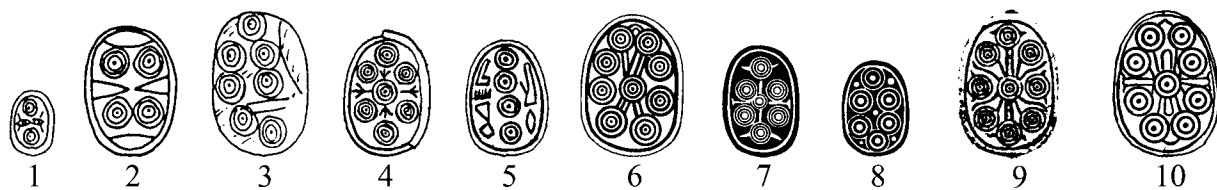


Plate 59

1. Rishon Leziyyon 9/92 3210 (drawing by Christa Mlinar)
2. Rishon Leziyyon 9/92 2573/3/c (drawing by Christa Mlinar)
3. Rishon Leziyyon 9/92 2573/3/b (drawing by Christa Mlinar)
4. Kirkbride 1965: Fig. 294: 6
5. Kirkbride 1965: Fig. 294: 10
6. Kiekbride 1965: Fig. 303: 2
7. Loud 1948: Pl. 153: 237
8. Tufnell 1973: Fig. 2: 52
9. Horn 1973: Fig. 1: 57
10. Tufnell 1958: Pl. 32: 108
11. Pritchard 1963: Fig. 70: 19
12. Keel 1997: 295, no. 563
13. Keel 1997: 385, no. 823
14. Keel 1997: 513, no. 1200
15. Kirkbride 1965: Fig. 289: 7
16. Kirkbride 1965: Fig. 293: 3
17. Kirkbride 1965: Fig. 293: 15
18. Tufnell 1973: Fig. 2: 71
19. Tufnell 1973: Fig. 2: 73
20. After Grant 1929: 89, 2nd row 1st from the left (drawing by Christa Mlinar)
21. Keel 1997: 419, no. 926
22. Kirkbride 1965: Fig. 282: 2
23. Kirkbride 1965: Fig. 283: 1
24. Kirkbride 1965: Fig. 283: 2
25. Kirkbride 1965: Fig. 283: 14
26. Kirkbride 1965: Fig. 283: 15
27. Kirkbride 1965: Fig. 283: 16
28. Kirkbride 1965: Fig. 285: 4
29. Kirkbride 1965: Fig. 285: 19
30. Kirkbride 1965: Fig. 286: 1
31. Kirkbride 1965: Fig. 289: 2
32. Kirkbride 1965: Fig. 292: 3
33. Kirkbride 1965: Fig. 293: 2
34. After Guy 1938: Pl. 105: 3 (drawing by Christa Mlinar)
35. After Guy 1938: Pl. 105: 4 (drawing by Christa Mlinar)
36. After Guy 1938: Pl. 105: 6 (drawing by Christa Mlinar)
37. Tufnell 1973: Fig. 1: 10
38. Tufnell 1973: Fig. 1: 44
39. Tufnell 1973: Fig. 2: 80
40. Tufnell 1984: Fig. 16: 20
41. Rishon Leziyyon 9/92 3114/2 (drawing by Christa Mlinar)
42. Rishon Leziyyon 9/92 3157 (drawing by Christa Mlinar)
43. Rishon Leziyyon 9/92 2863 (drawing by Christa Mlinar)
44. Rishon Leziyyon 9/92 2959 (drawing by Christa Mlinar)
45. Tufnell 1973: Fig. 2: 60
46. Tufnell 1958: Pl. 32: 108
47. Tufnell 1958: Pl. 32: 111
48. Tufnell 1958: Pl. 32: 112
49. Keel 1997: 295, no. 563
50. Keel 1997: 315, no. 623
51. Keel 1997: 319, no. 633
52. Keel 1997: 401, no. 869



Design class 5 - cross patterns

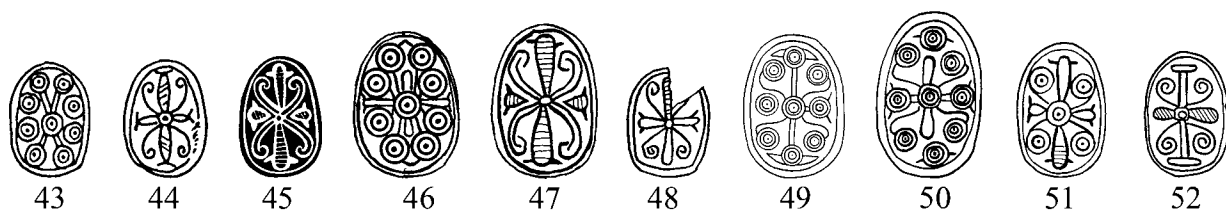
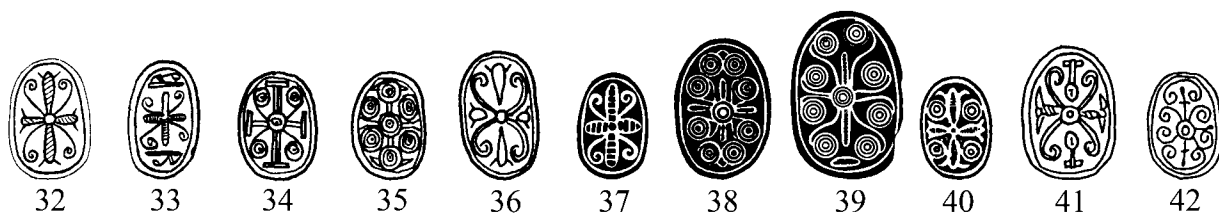
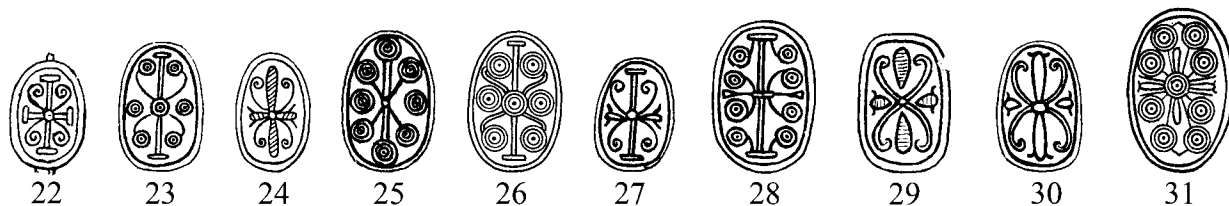
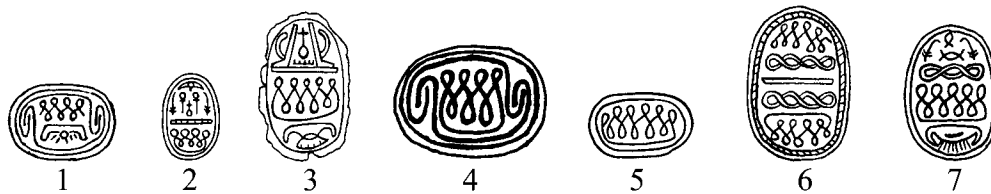
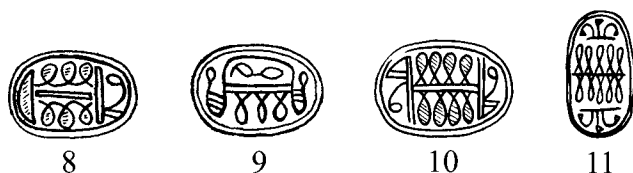


Plate 60

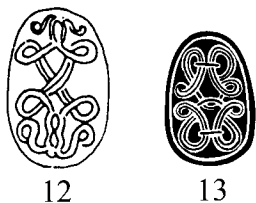
1. Kirkbride 1965: Fig. 287: 2
2. Kirkbride 1965: Fig. 298: 6
3. Givon 1985: 113, no. 7
4. Horn 1962: Fig. 1: 1
5. Keel 1997: 395, no. 850
6. Tufnell 1958: Pl. 30: 19
7. Tufnell 1958: Pl. 32: 102
8. Kirkbride 1965: Fig. 299: 2
9. Kirkbride 1965: Fig. 299: 6
10. Keel 1997: 161, no. 167
11. Keel 1997: 161, no. 168
12. Rishon Leziyyon 9/92 3115/1,2 (drawing by Christa Mlinar)
13. Tufnell 1973: Fig. 2: 89
14. Kirkbride 1965: Fig. 282: 14
15. Kirkbride 1965: Fig. 283: 18
16. Kirkbride 1965: Fig. 284: 1
17. Kirkbride 1965: Fig. 285: 2
18. Kirkbride 1965: Fig. 285: 3
19. Kirkbride 1965: Fig. 286: 2
20. Tufnell 1973: Fig. 1: 5
21. Rishon Leziyyon 9/92 3170 (drawing by Christa Mlinar)
22. Rishon Leziyyon 9/92 2673 (drawing by Christa Mlinar)
23. Rishon Leziyyon 94/91 1064 (drawing by Christa Mlinar)
24. After Guy 1938: Pl. 105: 5 (drawing by Christa Mlinar)
25. Tufnell 1973: Fig. 2: 77
26. Rowe 1936: Pl. 3: 89
27. Horn 1962: Fig. 2: 25
28. Tufnell 1958: Pl. 30: 19
29. Tufnell 1958: Pl. 30: 24
30. Tufnell 1958: Pl. 32: 102



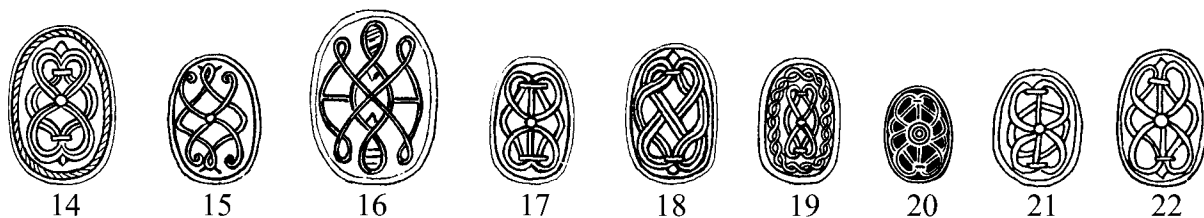
Design class 6A2 - single line loops



Design class 6B1 - convoluted coils



Design class 6B2 - convoluted coils, knot-like



Design class 6B3 - convoluted coils, varia



Design class 6C3 - encompassed coils, central cable

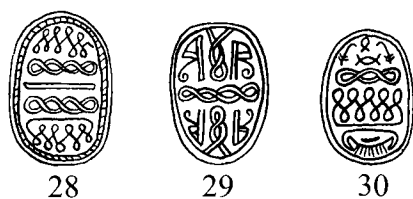
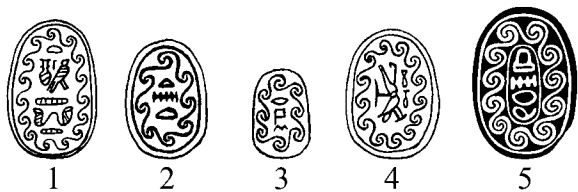
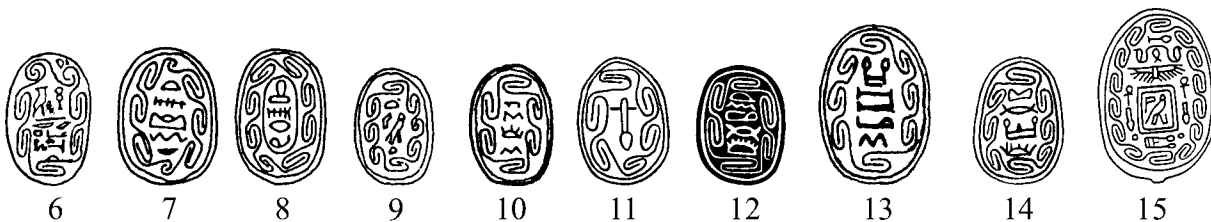


Plate 61

1. Kirkbride 1965: Fig. 283: 7
2. Kirkbride 1965: Fig. 285: 9
3. Kirkbride 1965: Fig. 288: 3
4. Kirkbride 1965: Fig. 292: 18
5. Tufnell 1973: Fig. 1: 47
6. Kirkbride 1965: Fig. 288: 17
7. Rishon Leziyyon 9/92 2626 (drawing by Christa Mlinar)
8. Rishon Leziyyon 9/92 2905 (drawing by Christa Mlinar)
9. Rishon Leziyyon 9/92 2404 (drawing by Christa Mlinar)
10. After Guy 1938: Pl. 105: 2 (drawing by Christa Mlinar)
11. Giveon 1978b: Fig. 43: 11
12. Tufnell 1973: Fig. 2: 87
13. Amiet et al. 1996: Pl. 5: 9
14. Tufnell 1958: Pl. 30: 23
15. Keel 1997: 383, no. 820
16. Kirkbride 1965: Fig. 285: 11
17. Kirkbride 1965: Fig. 286: 17
18. Kirkbride 1965: Fig. 287: 2
19. Kirkbride 1965: Fig. 282: 15
20. Kirkbride 1965: Fig. 289: 15
21. Tufnell 1973: Fig. 1: 19
22. Tufnell 1973: Fig. 1: 30
23. Rishon Leziyyon 9/92 2792 (drawing by Christa Mlinar)
24. Tufnell 1973: Fig. 1: 49
25. Rowe 1936: Pl. 2: 62
26. Keel 1997: 415, no. 914
27. Kirkbride 1965: Fig. 283: 5
28. Kirkbride 1965: Fig. 285: 12
29. Kirkbride 1965: Fig. 287: 1
30. Kirkbride 1965: Fig. 287: 8
31. Kirkbride 1965: Fig. 287: 10
32. Kirkbride 1965: Fig. 288: 18
33. After Grant 1929: 89, 4th row 1st from the left (drawing by Christa Mlinar)



Design class 7A2 - continuous scroll border, oblong scrolls



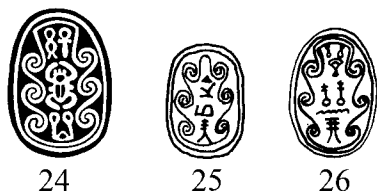
Design class 7B1(ii) - paired scrolls, one pair, oblong



Design class 7B2(ii) - paired scrolls, two pairs, oblong



Design class 7B3(i) - paired scrolls, three pairs, round



Design class 7B3(ii) - paired scrolls, three pairs, oblong

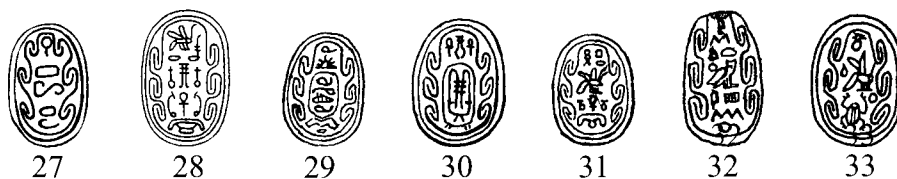


Plate 62

1. Rishon Leziyyon 9/92 2679 (drawing by Christa Mlinar)
2. Kirkbride 1965: Fig. 285: 8
3. Kirkbride 1965: Fig. 287: 6
4. Kirkbride 1965: Fig. 288: 4
5. Kirkbride 1965: Fig. 288: 6
6. Kirkbride 1965: Fig. 289: 6
7. After Guy 1938: Pl. 105: 9 (drawing by Christa Mlinar)
8. Rishon Leziyyon 9/92 2618 (drawing by Christa Mlinar)
9. Kirkbride 1965: Fig. 282: 14
10. Kirkbride 1965: Fig. 282: 20
11. Kirkbride 1965: Fig. 283: 3
12. Kirkbride 1965: Fig. 283: 11
13. Kirkbride 1965: Fig. 285: 5
14. Kirkbride 1965: Fig. 286: 6
15. Kirkbride 1965: Fig. 286: 12
16. Kirkbride 1965: Fig. 293: 4
17. Tufnell 1973: Fig. 1: 7
18. Tufnell 1973: Fig. 1: 26
19. Tufnell 1973: Fig. 1: 50
20. Rishon Leziyyon 9/92 2854 (drawing by Christa Mlinar)
21. Kirkbride 1965: Fig. 291: 12
22. Keel 1997: 351, no. 723
23. Kirkbride 1965: Fig. 286: 2
24. Kirkbride 1965: Fig. 292: 17
25. After Ilan 1996: Fig. 4.45 (drawing by Pnina Arad)
26. Keel 1997: 269, no. 491
27. After Haynes and Markowitz 1991, no. 59 (drawing by Pnina Arad)
28. After Haynes and Markowita 1991, no. 72 (drawing by Pnina Arad)
29. Keel 1997: 389, no. 832
30. Tufnell 1973: Fig. 2: 56



1

Design class 7+8 - oblong scrolls with rope border



2



3



4



5



6



7



8

Design class 8A - rope border, twisted strand



9



10



11



12



13



14



15



16



17



18



19



20



21



22

Design class 8C - rope border, full "twisted" cable



23

Design class 9 - animals and heraldic beasts



24



25



26



27



28



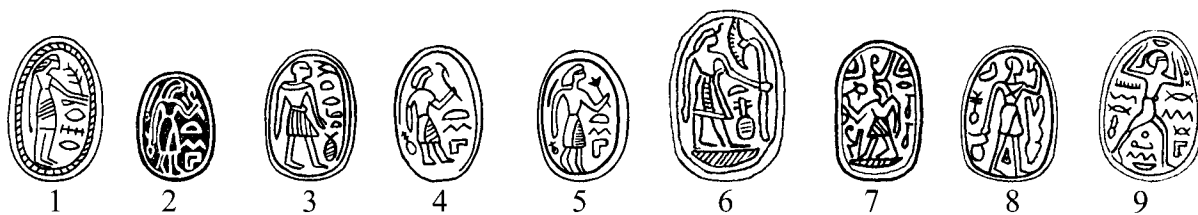
29



30

Plate 63

1. Kirkbride 1965: Fig. 282: 20
2. Tufnell 1984: Fig. 16: 12
3. Keel 1997: 543, no. 37
4. Keel 1997: 545, no. 39
5. Keel 1997: 593, no. 177
6. Keel 1997: 469, no. 1065
7. After Guy 1938: Pl. 106: 9 (drawing by Christa Mlinar)
8. Kirkbride 1965: Fig. 301: 7
9. Kirkbride 1965: Fig. 301: 8
10. Keel 1990b: Fig. 5
11. Keel 1990b: Fig. 6
12. Keel 1997: 545, no. 40
13. Tufnell 1958: Pl. 36: 235
14. Giveon 1978b: Fig. 43: 7
15. Kirkbride 1965: Fig. 288: 13
16. Tufnell 1973: Fig. 1: 14
17. Tufnell 1973: Fig. 2: 66
18. After Guy 1938: Pl. 106: 8 (drawing by Christa Mlinar)
19. Keel 1997: 389, no. 832
20. Kirkbride 1965: Fig. 282: 11
21. Kirkbride 1965: Fig. 293: 11
22. Tufnell 1973: Fig. 1: 50
23. Tufnell 1973: Fig. 2: 61
24. Tufnell 1984: Fig. 16: 9
25. Giveon 1978b: Fig. 43: 8
26. Keel 1997: 207, no. 306
27. Keel 1989: 51, no. 21
28. Schroer 1989: 99, no. 41
29. Ward and Dever 1994: Fig. 5:1c: 70
30. Kirkbride 1965: Fig. 293: 14
31. Kirkbride 1965: Fig. 290: 18
32. Keel 1997: 281, no. 519



Design class 10B - two or more figures standing or kneeling



Design class 10C - kneeling figures



Design class 10D1 - goddess standing, nude

Design class 10D2 - "Hathor" symbol



Design class 10E - human figures, enthroned



Plate 64

1. Kirkbride 1965: Fig. 282: 1
2. Kirkbride 1965: Fig. 282: 2
3. Kirkbride 1965: Fig. 282: 5
4. Kirkbride 1965: Fig. 282: 6
5. Kirkbride 1965: Fig. 282: 13
6. Kirkbride 1965: Fig. 282: 17
7. Kirkbride 1965: Fig. 282: 18
8. Kirkbride 1965: Fig. 282: 20
9. Kirkbride 1965: Fig. 282: 21
10. Kirkbride 1965: Fig. 282: 23
11. Kirkbride 1965: Fig. 283: 1
12. Kirkbride 1965: Fig. 283: 2
13. Kirkbride 1965: Fig. 283: 5
14. Kirkbride 1965: Fig. 283: 8
15. Kirkbride 1965: Fig. 283: 9
16. Kirkbride 1965: Fig. 283: 13
17. Kirkbride 1965: Fig. 283: 16
18. Kirkbride 1965: Fig. 291: 12

B2-head group

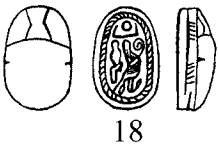
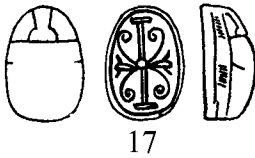
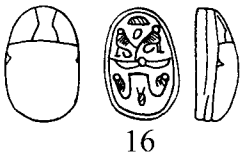
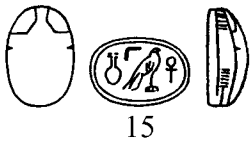
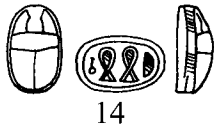
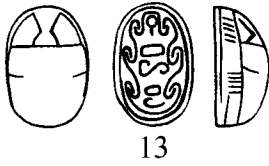
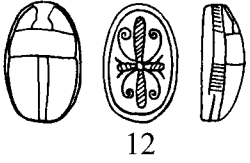
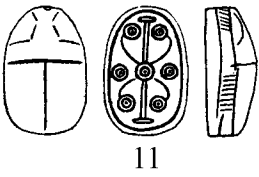
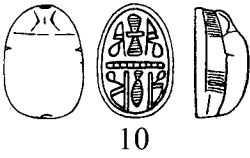
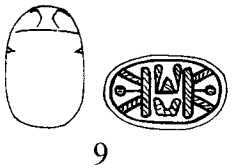
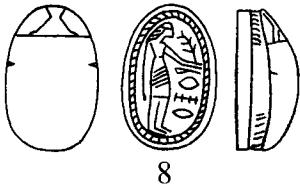
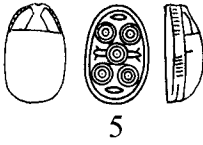
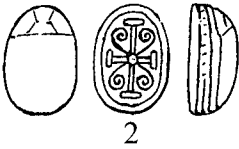
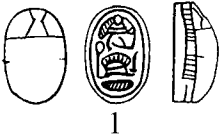


Plate 65

1. Kirkbride 1965: Fig. 292: 7
2. Kirkbride 1965: Fig. 292: 9
3. Kirkbride 1965: Fig. 292: 14
4. Kirkbride 1965: Fig. 292: 15
5. Kirkbride 1965: Fig. 293: 2
6. Kirkbride 1965: Fig. 293: 4
7. Kirkbride 1965: Fig. 293: 6
8. Kirkbride 1965: Fig. 293: 8
9. Tufnell 1984: Fig. 16: 2
10. Tufnell 1984: Fig. 16: 11
11. Tufnell 1984: Fig. 16: 16
12. Tufnell 1984: Fig. 16: 23
13. Loud 1948: Pls. 149, 154: 21 (drawing of features by Christa Mlinar)
14. Loud 1948: Pls. 149, 154: 29 (drawing of features by Christa Mlinar)
15. Loud 1948: Pls. 149, 154: 34 (drawing of features by Christa Mlinar)
16. Loud 1948: Pls. 150, 155: 61 (drawing of features by Christa Mlinar)
17. Loud 1948: Pls. 150, 155: 78 (drawing of features by Christa Mlinar)

B2-head group

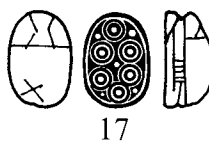
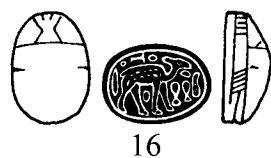
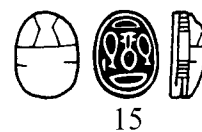
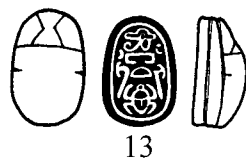
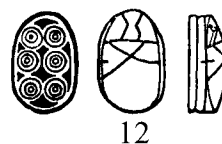
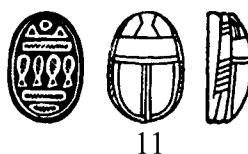
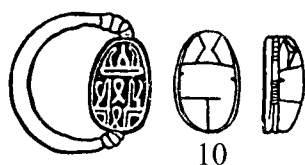
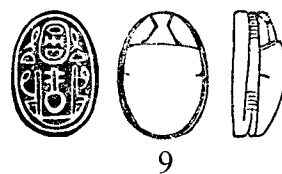
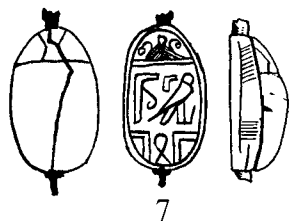
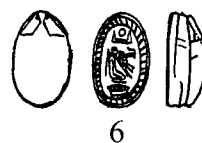
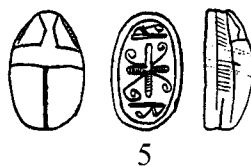
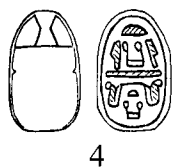
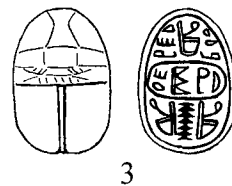
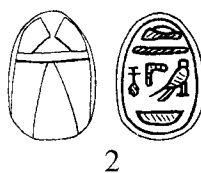
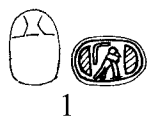


Plate 66

1. Loud 1948: Pls. 150, 156: 95 (drawing of features by Christa Mlinar)
2. Loud 1948: Pls. 150, 156: 101 (drawing of features by Christa Mlinar)
3. Loud 1948: Pls. 151, 157: 125 (drawing of features by Christa Mlinar)
4. Loud 1948: Pls. 151, 157: 135 (drawing of features by Christa Mlinar)
5. After Guy 1938: Pl. 105: 3 (drawing by Christa Mlinar)
6. Prichard 1963: Fig. 70: 14
7. `Ain Samiya, unpublished (drawing by Christa Mlinar)
8. `Ain Samiya, unpublished (drawing by Christa Mlinar)
9. `Ain Samiya, unpublished (drawing by Christa Mlinar)
10. Kirkbride 1965: Fig. 282: 7
11. Kirkbride 1965: Fig. 293: 9
12. Loud 1948: Pls. 149, 155: 55 (drawing of features by Christa Mlinar)
13. Loud 1948: Pls. 150, 156: 96 (drawing of features by Christa Mlinar)
14. Loud 1948: Pls. 151, 157: 142 (drawing of features by Christa Mlinar)
15. `Ain Smiya, unpublished (drawing by Christa Mlinar)
16. Kirkbride 1965: Fig. 282: 24
17. Kirkbride 1965: Fig. 293: 16
18. Loud 1948: Pls. 149, 154: 12

B2-head group

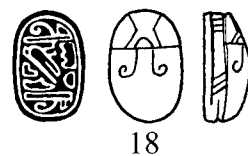
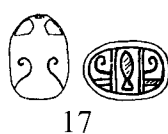
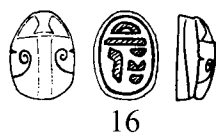
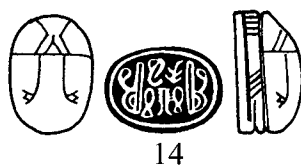
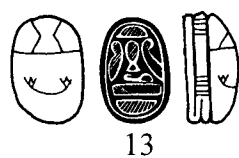
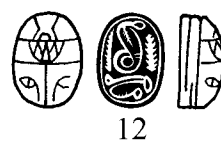
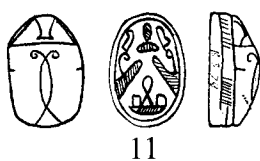
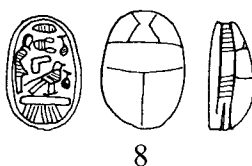
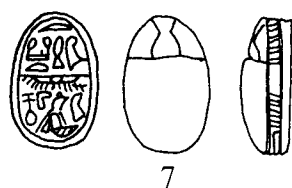
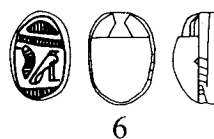
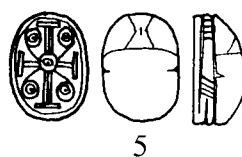
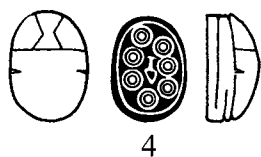
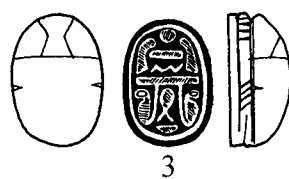
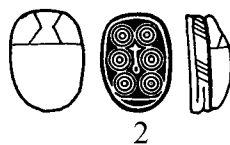
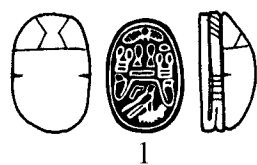
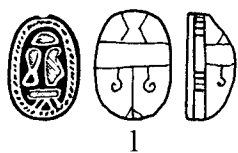


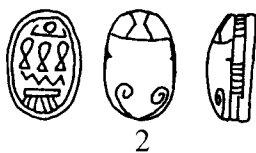
Plate 67

1. Loud 1948: Pls. 149, 154: 16
2. After Grant 1929: 89, 3rd row 1st from the left (drawing by Christa Mlinar)
3. Giveon 1978b: Fig. 42: 3
4. Kirkbride 1965: Fig. 292: 3
5. After Guy 1938: Pl. 106: 6 (drawing by Christa Mlinar)
6. Tufnell 1984: Fig. 16: 22
7. Tufnell 1984: Fig. 17: 31
8. Giveon 1978b: Fig. 43: 8
9. Keel 1997: 281, no. 519
10. Keel 1997: 543, no. 37
11. Tufnell 1984: Pl. 52: 3037
12. Kirkbride 1965: Fig. 282: 8
13. Kirkbride 1965: Fig. 282: 11
14. Kirkbride 1965: Fig. 282: 14
15. Kirkbride 1965: Fig. 283: 19
16. Kirkbride 1965: Fig. 283: 21
17. Kirkbride 1965: Fig. 283: 23

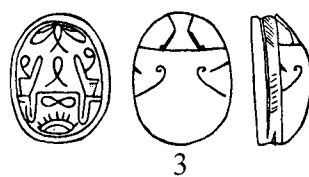
B2-head group



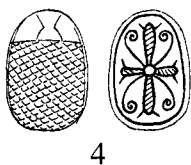
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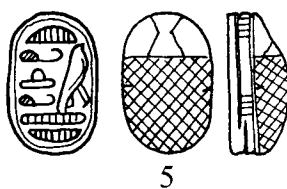
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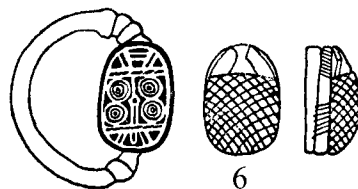
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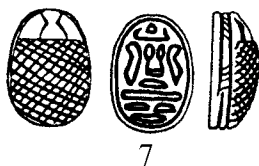
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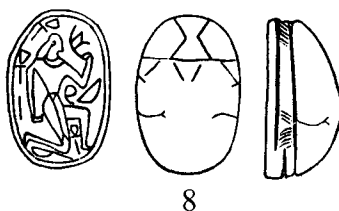
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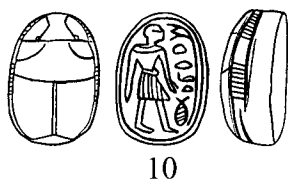
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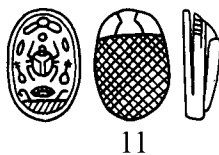
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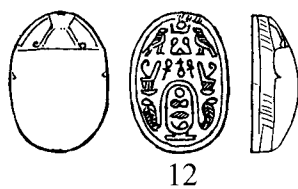


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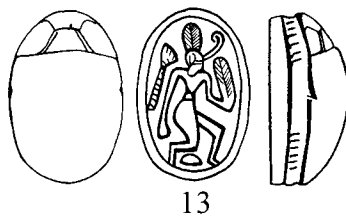


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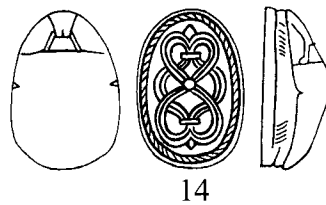
D-head group



12



13



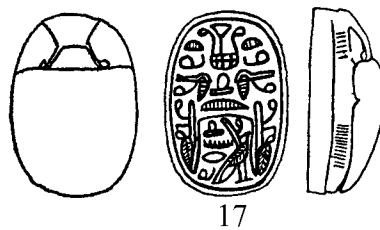
14



15



16



17

Plate 68

1. Kirkbride 1965: Fig. 284: 3
2. Kirkbride 1965: Fig. 285: 4
3. Kirkbride 1965: Fig. 285: 10
4. Kirkbride 1965: Fig. 285: 15
5. Kirkbride 1965: Fig. 286: 6
6. Loud 1948: Pls. 149, 154: 19 (drawing of features by Christa Mlinar)
7. Loud 1948: Pls. 149, 154: 36 (drawing of features by Christa Mlinar)
8. Loud 1948: Pls. 150, 155: 66 (drawing of features by Christa Mlinar)
9. Loud 1948: Pls. 150, 155: 73 (drawing of features by Christa Mlinar)
10. Loud 1948: Pls. 150, 155: 77 (drawing of features by Christa Mlinar)
11. Loud 1948: Pls. 150, 156: 98 (drawing of features by Christa Mlinar)
12. Loud 1948: Pls. 150, 156: 99 (drawing of features by Christa Mlinar)
13. Loud 1948: Pls. 150, 156: 100 (drawing of features by Christa Mlinar)
14. Tufnell 1984: Fig. 16: 1
15. Tufnell 1984: Fig. 16: 3
16. Tufnell 1984: Fig. 16: 4
17. Tufnell 1984: Fig. 16: 5
18. Tufnell 1984: Fig. 16: 7

D-head group

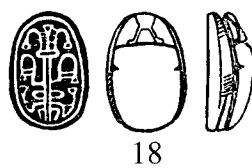
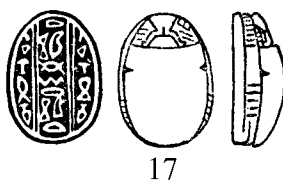
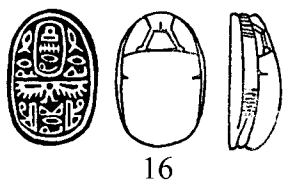
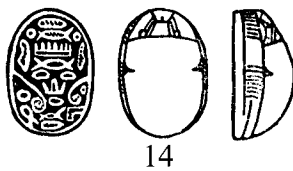
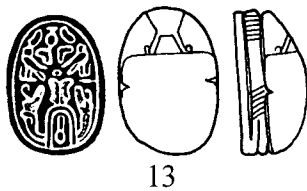
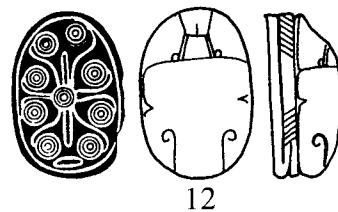
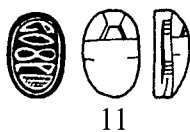
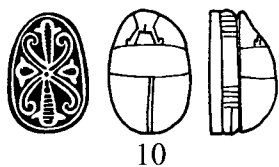
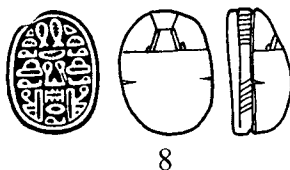
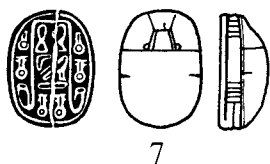
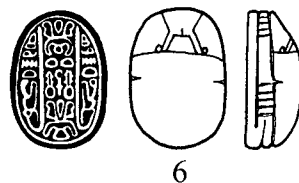
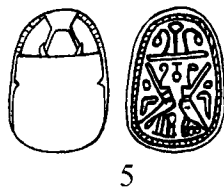
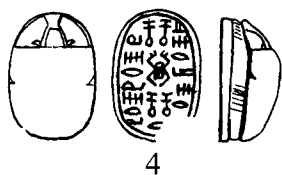
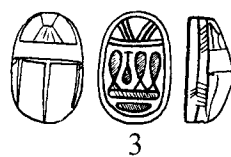
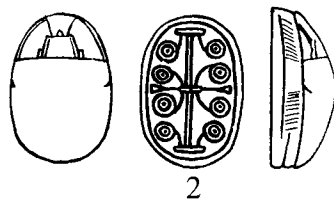
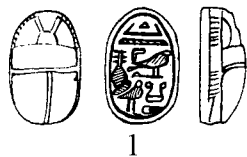


Plate 69

1. Tufnell 1984: Fig. 16: 8
2. Tufnell 1984: Fig. 16: 9
3. Tufnell 1984: Fig. 16: 12
4. Tufnell 1984: Fig. 16: 13
5. Tufnell 1984: Fig. 16: 15
6. Tufnell 1984: Fig. 17: 27
7. Tufnell 1984: Fig. 17: 29
8. Loud 1948: Pls. 149, 154: 35 (drawing of features by Christa Mlinar)
9. Loud 1948: Pls. 150, 155: 68 (drawing of features by Christa Mlinar)
10. Loud 1948: Pls. 150, 155: 69 (drawing of features by Christa Mlinar)
11. Loud 1948: Pls. 150, 155: 71 (drawing of features by Christa Mlinar)
12. Loud 1948: Pls. 150, 156: 105 (drawing of features by Christa Mlinar)
13. After Guy 1938: Pl. 105: 2 (drawing by Christa Mlinar)
14. After Guy 1938: Pl. 105: 6 (drawing by Christa Mlinar)
15. After Guy 1938: Pl. 106: 4 (drawing by Christa Mlinar)
16. After Guy 1938: Pl. 106: 9 (drawing by Christa Mlinar)
17. Giveon 1978b: Fig. 42: 2

D-head group

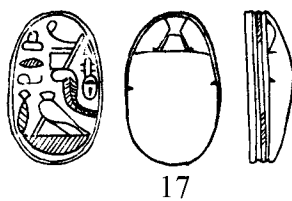
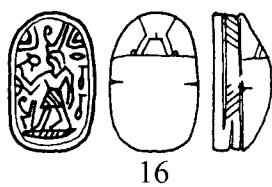
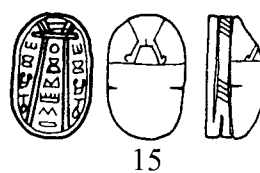
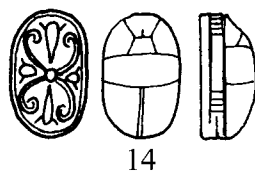
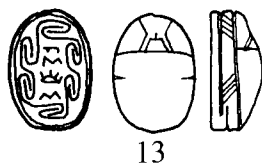
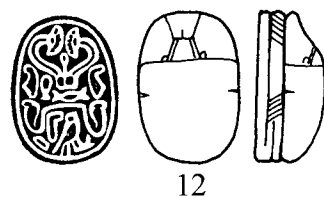
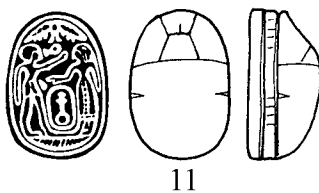
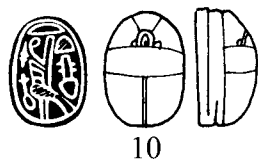
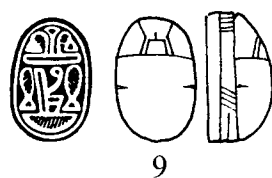
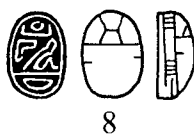
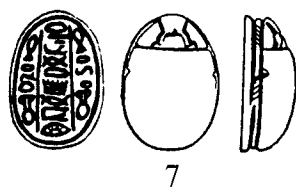
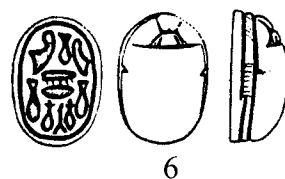
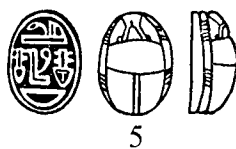
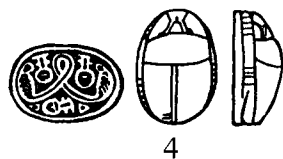
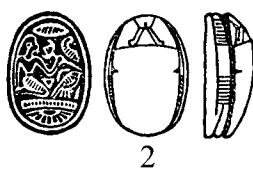
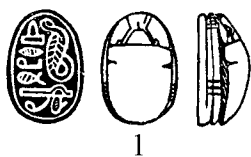
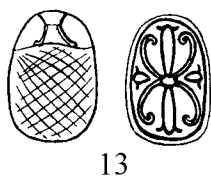
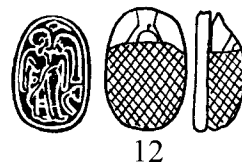
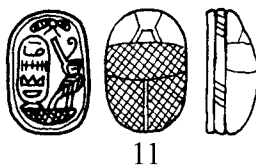
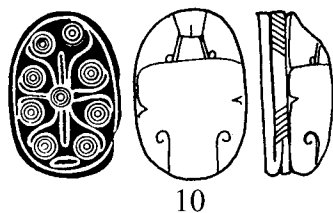
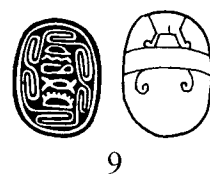
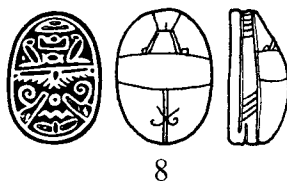
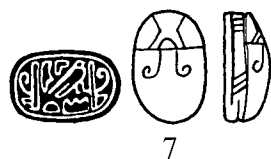
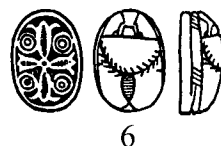
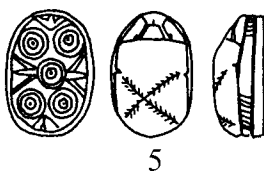
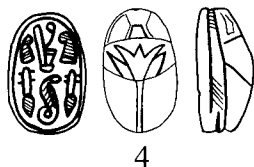
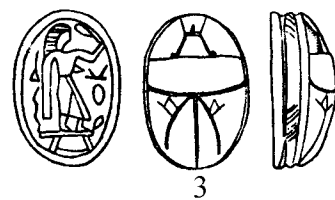
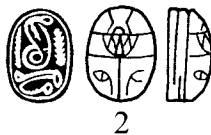
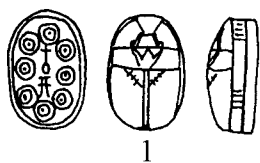


Plate 70

1. After Grant 1929: 89, 2nd row, 1st from the left (drawing by Christa Mlinar)
2. Loud 1948: Pls. 149, 155: 55 (drawing of features by Christa Mlinar)
3. Giveon 1978b: Fig. 43: 7
4. Keel 1997: 207, no. 309
5. After Grant 1929: 89, 5th row, 2nd from the left (drawing by Christa Mlinar)
6. Tufnell 1984: Fig. 16: 20
7. Loud 1948: Pls. 149, 154: 12 (drawing of features by Christa Mlinar)
8. Loud 1948: Pls. 149, 154: 18 (drawing of features by Christa Mlinar)
9. Loud 1948: Pls. 150, 156: 87 (drawing of features by Christa Mlinar)
10. Loud 1948: Pls. 150, 156: 99 (drawing of features by Christa Mlinar)
11. After Guy 1938: Pl. 106: 1 (drawing by Christa Mlinar)
12. Loud 1948: Pls. 149, 155: 52 (drawing of features by Christa Mlinar)
13. Kirkbride 1965: Fig. 286: 1
14. Amiet et al. 1996: Pl. 7: 31
15. After Guy 1938: Pl. 106: 8 (drawing by Christa Mlinar)
16. Loud 1948: Pls. 149, 154: 28 (drawing of features by Christa Mlinar)
17. Loud 1948: Pls. 149, 154: 30 (drawing of features by Christa Mlinar)

D-head group



A-head group

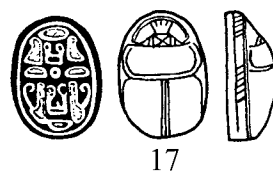
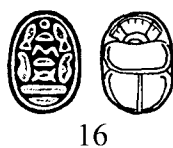


Plate 71

1. Loud 1948: Pls. 149, 155: 42
2. Loud 1948: Pls. 149, 155: 44
3. Loud 1948: Pls. 150, 155: 76
4. Loud 1948: Pls. 150, 156: 94
5. Kirkbride 1965: Fig. 283: 14
6. Kirkbride 1965: Fig. 283: 15
7. Kirkbride 1965: Fig. 288: 12
8. Kirkbride 1965: Fig. 289: 2
9. Kirkbride 1965: Fig. 292: 17
10. Kirkbride 1965: Fig. 292: 18
11. Kirkbride 1965: Fig. 293: 3
12. Kirkbride 1965: Fig. 294: 13
13. Tufnell 1984: Fig. 16: 10
14. Tufnell 1984: Fig. 16: 18
15. Tufnell 1984: Fig. 16: 19
16. Tufnell 1984: Fig. 17: 30
17. Pritchard 1963: Fig. 70: 21
18. Loud 1948: Pls. 150, 156: 84

A-head group

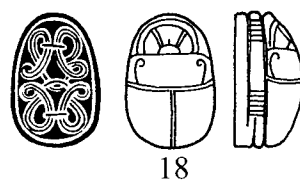
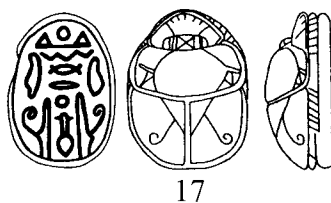
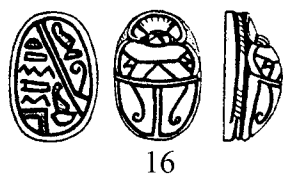
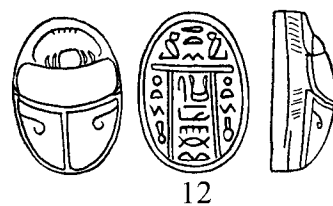
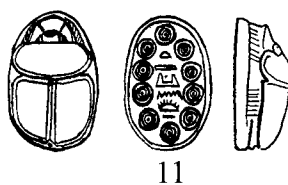
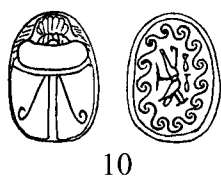
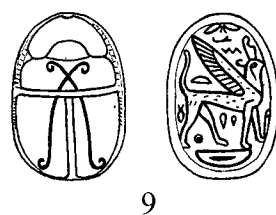
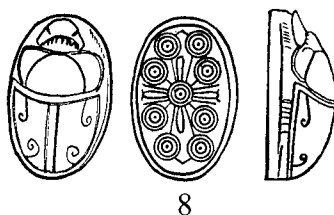
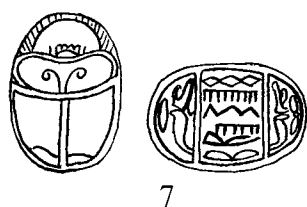
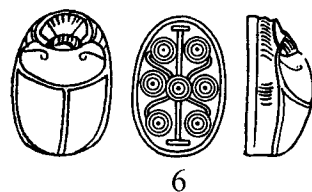
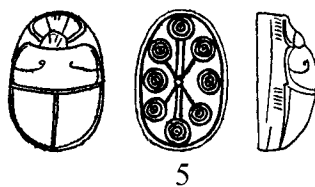
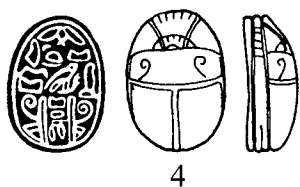
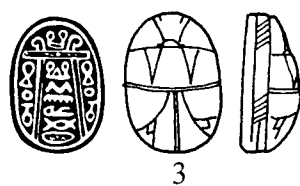
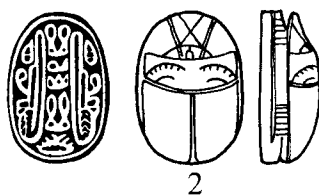
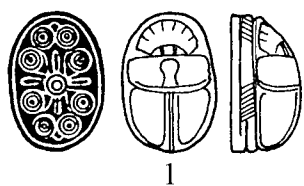
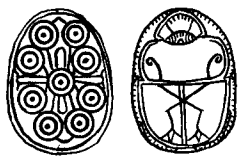


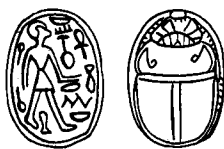
Plate 72

1. Tufnell 1958: Pl. 32: 108
2. Tufnell 1958: Pl. 36: 235
3. Keel 1997: 235, no. 391
4. Keel 1997: 239, no. 402
5. Keel 1997: 437, no. 981
6. Mizrachy in Kempinski 2002: Fig. 9.2: 8
7. Mizrachy in Kempinski 2002: Fig. 9.2: 9
8. Kirkbride 1965: Fig. 282: 15
9. Kirkbride 1965: Fig. 282: 16
10. Kirkbride 1965: Fig. 283: 11
11. Kirkbride 1965: Fig. 285: 16
12. Kirkbride 1965: Fig. 285: 17
13. Kirkbride 1965: Fig. 289: 3
14. Kirkbride 1965: Fig. 289: 4
15. Kirkbride 1965: Fig. 289: 7
16. Kirkbride 1965: Fig. 289: 9

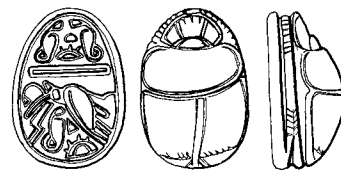
A-head group



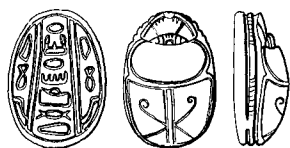
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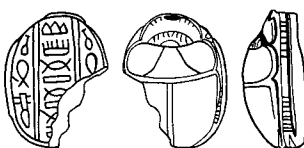
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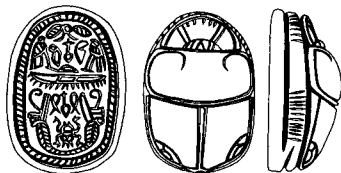
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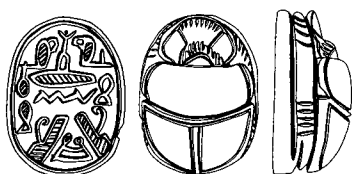
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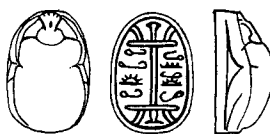


7

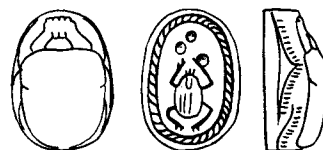
Other early Canaanite features



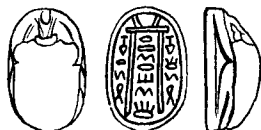
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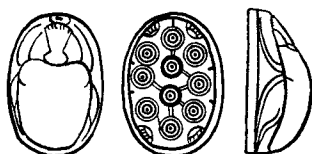
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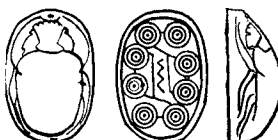
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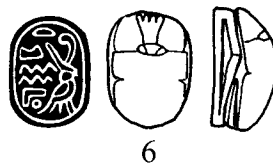
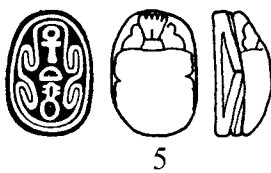
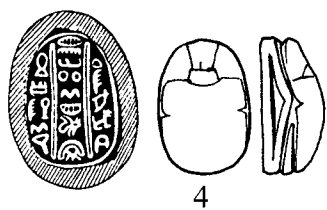
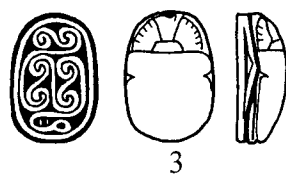
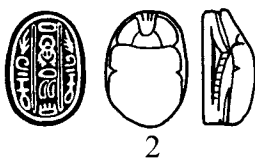
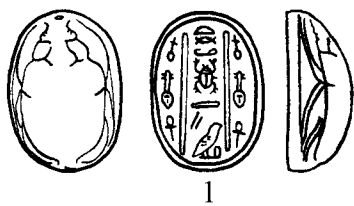
15



16

Plate 73

1. Kirkbride 1965: Fig. 289: 11
2. Loud 1948: Pls. 149, 154: 3 (drawing of features by Christa Mlinar)
3. Loud 1948: Pls. 149, 154: 8 (drawing of features by Christa Mlinar)
4. Loud 1948: Pls. 149, 154: 39 (drawing of features by Christa Mlinar)
5. Loud 1948: Pls. 149, 155: 47 (drawing of features by Christa Mlinar)
6. Loud 1948: Pls. 150, 155: 72 (drawing of features by Christa Mlinar)



Canaanite Scarabs
of the Late Palestinian Series

Plate 74

1. Kirkbride 1965: Fig. 290: 20
2. Kirkbride 1965: Fig. 291: 5
3. Kirkbride 1965: Fig. 295: 19
4. Kirkbride 1965: Fig. 295: 20
5. Kirkbride 1965: Fig. 296: 9
6. Kirkbride 1965: Fig. 296: 12
7. Kirkbride 1965: Fig. 297: 15
8. Petrie 1930: Pl. 7: 24
9. Starkey and Harding 1932: Pl. 43: 38
10. Price Williams 1977: Fig. 27: 4
11. Price Williams 1977: Fig. 27: 7
12. Price Williams 1977: Fig. 37: 7
13. Price Williams 1977: Fig. 48: 11
14. Price Williams 1977: Fig. 54: 1
15. Price Williams 1977: Fig. 96: 3
16. Tufnell 1958: Pl. 32: 74
17. Tufnell 1958: Pl. 32: 124
18. Tufnell 1958: Pl. 34: 189
19. Tufnell 1958: Pl. 34: 190
20. Macalister 1912: Pl. 206: 9
21. Macalister 1912: Pl. 206: 34
22. Macalister 1912: Pl. 208: 1
23. Tufnell 1973: Fig. 2: 62
24. Tufnell 1973: Fig. 2: 82
25. Petrie 1931: Pl. 14: 111 = Keel 1997: 141, no. 105
26. Petrie 1934: Pl. 5: 13 = Keel 1997: 297, no. 574
27. Petrie 1934: Pl. 5: 35 = Keel 1997: 305, no. 596
28. Petrie 1934: Pl. 5: 56 = Keel 1997: 313, no. 617
29. Petrie 1934: Pl. 5: 94 = Keel 1997: 327, no. 654
30. Petrie 1934: Pl. 7: 217 = Keel 1997: 369, no. 777
31. Petrie 1934: Pl. 7: 239 = Keel 1997: 377, no. 799
32. Petrie 1934: Pl. 11: 398 = Keel 1997: 429, no. 954
33. Keel 1989: 227, Fig. 31
34. Keel 1989: 223, Fig. 23
35. Keel 1989: 225, Fig. 27
36. Keel 1989: 225, Fig. 28
37. Kirkbride 1965: Fig. 300: 24
38. Petrie 1932: Pl. 8: 136 = Keel 1997: 217, no. 339
39. Petrie 1933: Pl. 3: 87 = Keel 1997: 257, no. 455
40. Petrie 1934: Pl. 7: 248 = Keel 1997: 379, no. 808
41. Mackay and Murray 1952: Pl. 9: 55 = Keel 1997: 475, no. 1081
42. Mackay and Murray 1952: Pl. 10: 106 = Keel 1997: 491, no. 1132
43. Petrie 1932: Pl. 8: 152 = Keel 1997: 223, no. 354
44. Petrie 1934: Pl. 5: 88 = Keel 1997: 323, no. 648
45. Mackay and Murray 1952: Pl. 10: 103 = Keel 1997: 489, no. 1129
46. Mackay and Murray 1952: Pl. 10: 104 = Keel 1997: 489, no. 1130
47. Mackay and Murray 1952: Pl. 10: 105 = Keel 1997: 489, no. 1131
48. Kirkbride 1965: Fig. 300: 9
49. Kirkbride 1965: Fig. 302: 11
50. Petrie 1930: Pl. 7: 9
51. Starkey and Harding 1932: Pl. 44: 74
52. Starkey and Harding 1932: Pl. 43: 22
53. Price Williams 1977: Fig. 99: 2
54. Macalister 1912: Pl. 204a: 10
55. Tufnell 1958: Pl. 34: 100

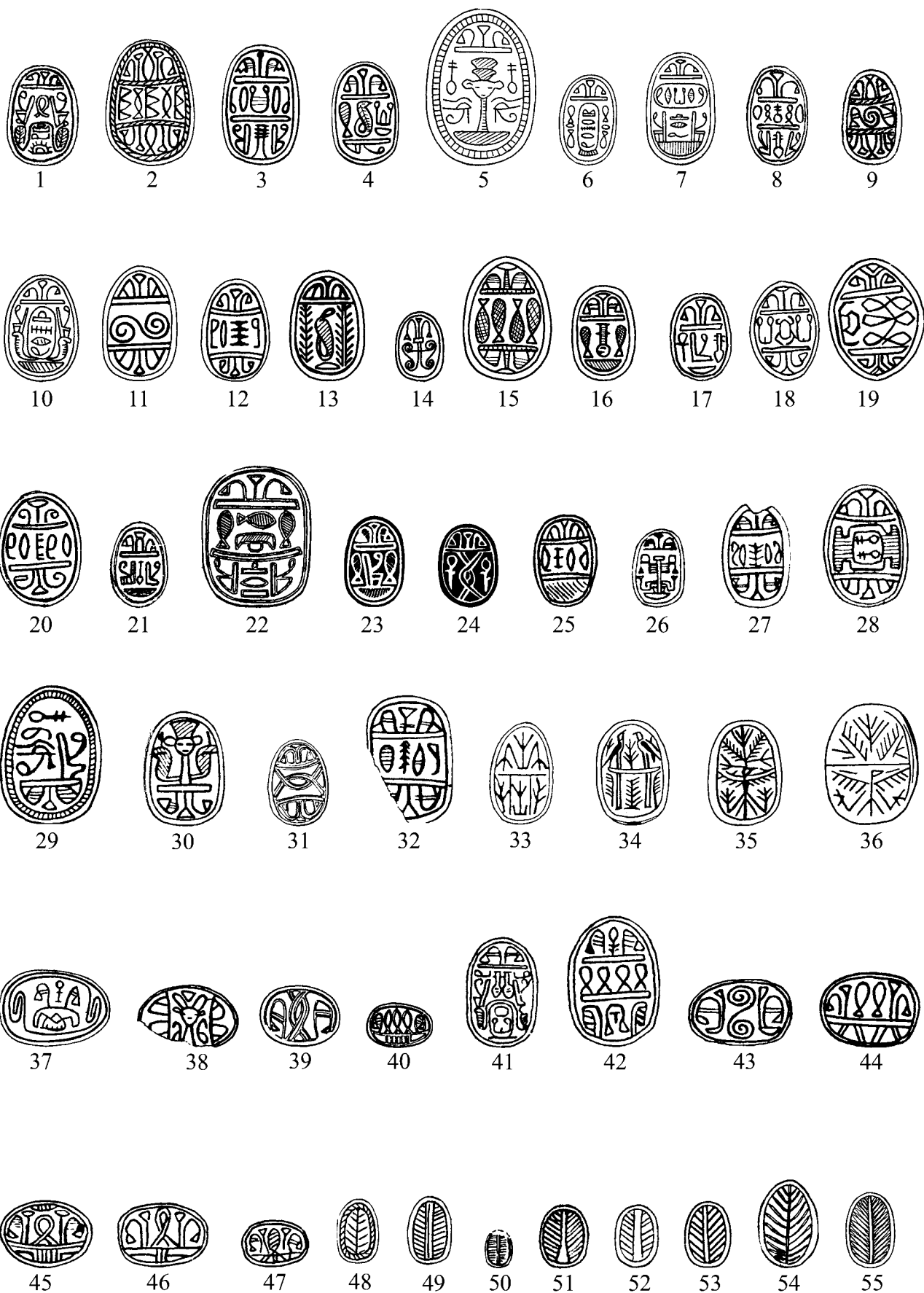


Plate 75

1. Tufnell 1984: Pl. 4: 1131
2. Tufnell 1984: Pl. 4: 1137
3. Tufnell 1984: Pl. 4: 1144
4. Tufnell 1984: Pl. 4: 1149
5. Tufnell 1984: Pl. 4: 1150
6. Tufnell 1984: Pl. 4: 1132
7. Tufnell 1984: Pl. 4: 1136
8. Tufnell 1984: Pl. 4: 1139
9. Tufnell 1984: Pl. 4: 1147
10. Tufnell 1984: Pl. 4: 1152
11. Tufnell 1984: Pl. 4: 1158
12. Tufnell 1984: Pl. 4: 1159
13. Tufnell 1984: Pl. 4: 1135
14. Tufnell 1984: Pl. 4: 1134
15. Tufnell 1984: Pl. 4: 1153
16. Tufnell 1984: Pl. 4: 1156
17. Tufnell 1984: Pl. 4: 1157
18. Tufnell 1984: Pl. 4: 1133
19. Tufnell 1984: Pl. 4: 1138
20. Tufnell 1984: Pl. 4: 1142
21. Tufnell 1984: Pl. 4: 1160
22. Tufnell 1973: Fig. 2: 86
23. Tufnell 1958: Pl. 32: 93
24. Tufnell 1958: Pl. 32: 94
25. Tufnell 1958: Pl. 32: 95
26. Tufnell 1958: Pl. 34: 156
27. Macalister 1912: Pl. 206: 40
28. Kirkbride 1965: Fig. 290: 3
29. Kirkbride 1965: Fig. 291: 4
30. Kirkbride 1965: Fig. 294: 1
31. Kirkbride 1965: Fig. 295: 7
32. Kirkbride 1965: Fig. 296: 1
33. Kirkbride 1965: Fig. 297: 5
34. Kirkbride 1965: Fig. 297: 8
35. Kirkbride 1965: Fig. 300: 13
36. Kirkbride 1965: Fig. 302: 15
37. Tufnell 1958: Pl. 30: 8
38. Tufnell 1958: Pl. 30: 9
39. Tufnell 1958: Pl. 30: 27
40. Tufnell 1958: Pl. 30: 39
41. Tufnell 1958: Pl. 34: 150
42. Tufnell 1958: Pl. 34: 151
43. Tufnell 1958: Pl. 34: 153
44. Macalister 1912: Pl. 206: 28
45. Macalister 1912: Pl. 206: 29
46. Macalister 1912: Pl. 207: 3
47. Givon 1985: 121, no. 33
48. Givon 1985: 121, no. 35
49. Petrie 1931: Pl. 13: 22 = Keel 1997: 111, no. 20
50. Petrie 1931: Pl. 14: 121 = Keel 1997: 145, no. 115
51. Petrie 1931: Pl. 14: 160 = Keel 1997: 157, no. 154
52. Petrie 1932: Pl. 7: 5 = Keel 1997: 175, no. 208
53. Petrie 1933: Pl. 3: 15 = Keel 1997: 233, no. 385
54. Petrie 1933: Pl. 4: 140 = Keel 1997: 275, no. 505
55. Petrie 1934: Pl. 5: 20 = Keel 1997: 301, no. 581
56. Petrie 1934: Pl. 5: 58 = Keel 1997: 313, no. 619
57. Petrie 1934: Pl. 5: 90 = Keel 1997: 325, no. 650



Design class 2B - scrolls and spirals, interlocking

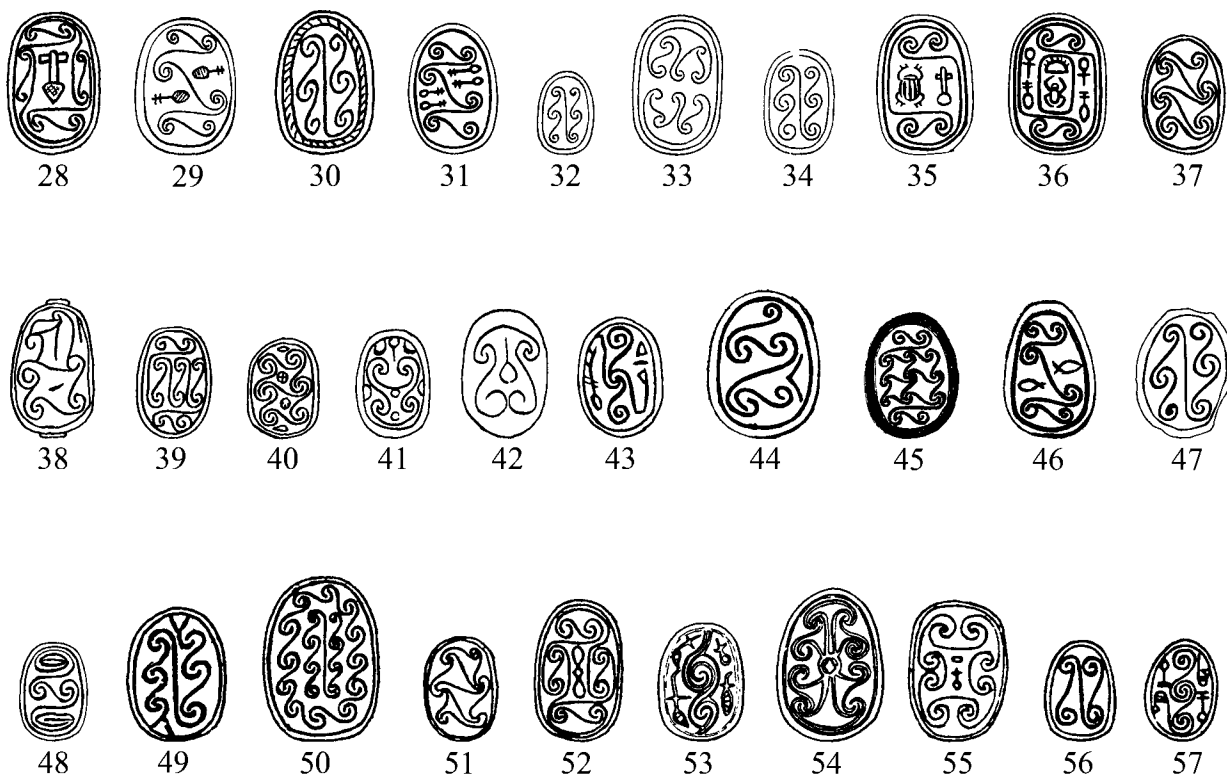


Plate 76

1. Petrie 1934: Pl. 5: 120 = Keel 1997: 335, no. 680
2. Petrie 1934: Pl. 7: 151 = Keel 1997: 347, no. 711
3. Petrie 1934: Pl. 7: 206 = Keel 1997: 365, no. 766
4. Petrie 1934: Pl. 7: 221 = Keel 1997: 371, no. 781
5. Petrie 1934: Pl. 7: 233 = Keel 1997: 375, no. 793
6. Petrie 1934: Pl. 7: 235 = Keel 1997: 375, no. 795
7. Petrie 1934: Pl. 7: 268 = Keel 1997: 387, no. 828
8. Petrie 1934: Pl. 9: 271 = Keel 1997: 387, no. 831
9. Petrie 1934: Pl. 9: 276 = Keel 1997: 389, no. 836
10. Petrie 1934: Pl. 9: 288 = Keel 1997: 393, no. 848
11. Petrie 1934: Pl. 9: 309 = Keel 1997: 401, no. 870
12. Petrie 1934: Pl. 9: 373 = Keel 1997: 421, no. 929
13. Petrie 1934: Pl. 9: 374 = Keel 1997: 421, no. 930
14. Mackay, and Murray 1952: Pl. 10: 144 = Keel 1997: 501, no. 1170
15. Price Williams 1977: Fig. 27: 5
16. Kirkbride 1965: Fig. 292: 1
17. Kirkbride 1965: Fig. 299: 21
18. Price Williams 1977: Fig. 15: 6
19. Price Williams 1977: Fig. 44: 10
20. Tufnell 1958: Pl. 32: 121
21. Macalister 1912: Pl. 207: 36
22. Petrie 1931: Pl. 14: 85 = Keel 1997: 131, no. 79
23. Petrie 1934: Pl. 5: 13 = Keel 1997: 297, no. 574
24. Petrie 1931: Pl. 13: 27 = Keel 1997: 113, no. 26
25. Petrie 1931: Pl. 14: 151 = Keel 1997: 155, no. 145
26. Petrie 1933: Pl. 4: 158 = Keel 1997: 281, no. 520
27. Petrie 1934: Pl. 5: 27 = Keel 1997: 303, no. 588
28. Petrie 1934: Pl. 5: 81 = Keel 1997: 321, no. 641
29. Petrie 1934: Pl. 5: 93 = Keel 1997: 325, no. 653
30. Petrie 1934: Pl. 5: 122 = Keel 1997: 335, no. 682
31. Petrie 1934: Pl. 7: 160 = Keel 1997: 349, no. 720
32. Petrie 1934: Pl. 11: 425 = Keel 1997: 437, no. 980
33. Mackay and Murray 1952: Pl. 9: 61 = Keel 1997: 477, no. 1087
34. Mackay and Murray 1952: Pl. 9: 62 = Keel 1997: 447, no. 1088
35. Mackay and Murray 1952: Pl. 10: 97 = Keel 1997: 487, no. 1123



1



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14



15

Design class 3A1 - sign of union (*sm3 t3wy*)



16



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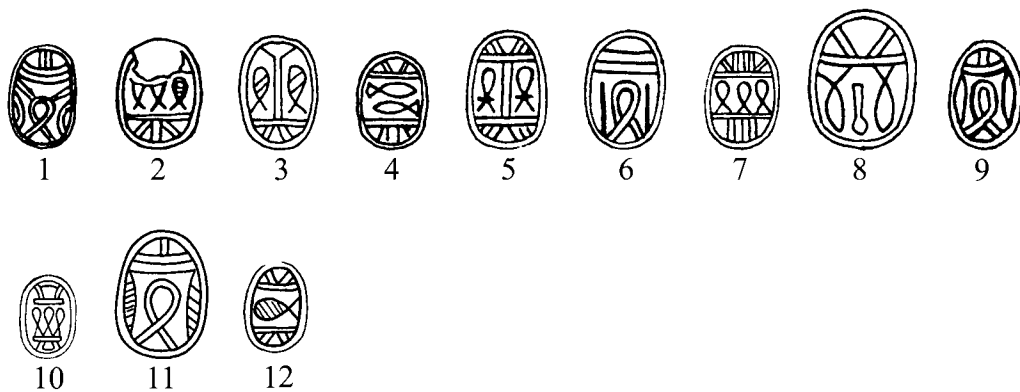
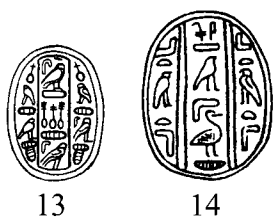
34



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Plate 77

1. Petrie 1931: Pl. 14: 179 = Keel 1997: 163, no. 173
2. Petrie 1933: Pl. 3: 23 = Keel 1997: 237, no. 393
3. Petrie 1933: Pl. 3: 57 = Keel 1997: 247, no. 426
4. Petrie 1933: Pl. 3: 75 = Keel 1997: 253, no. 443
5. Petrie 1934: Pl. 5: 34 = Keel 1997: 305, no. 595
6. Petrie 1934: Pl. 7: 236 = Keel 1997: 375, no. 796
7. Petrie 1934: Pl. 9: 381 = Keel 1997: 423, no. 937
8. Petrie 1934: Pl. 11: 419 = Keel 1997: 435, no. 975
9. Mackay and Murray 1952: Pl. 10: 166 = Keel 1997: 509, no. 1192
10. Kirkbride 1965: Fig. 297: 6
11. Price Williams 1977: Fig. 19: 2
12. Price Williams 1977: Fig. 99: 1
13. Kirkbride 1965: Fig. 292: 16
14. Petrie 1934: Pl. 5: 132 = Keel 1997: 339, no. 692
15. Kirkbride 1965: Fig. 297: 13
16. Kirkbride 1965: Fig. 298: 4
17. Kirkbride 1965: Fig. 300: 3
18. Kirkbride 1965: Fig. 300: 32
19. Price Williams 1977: Fig. 27: 4
20. Price Williams 1977: Fig. 48: 13
21. Tufnell 1958: Pl. 30: 60
22. Petrie 1931: Pl. 13: 50 = Keel 1997: 121, no. 46
23. Petrie 1931: Pl. 13: 71 = Keel 1997: 127, no. 65
24. Petrie 1931: Pl. 14: 117 = Keel 1997: 143, no. 111
25. Petrie 1931: Pl. 14: 149 = Keel 1997: 153, no. 143
26. Petrie 1933: Pl. 3: 84 = Keel 1997: 257, no. 452
27. Petrie 1933: Pl. 4: 146 = Keel 1997: 277, no. 511
28. Petrie 1934: Pl. 5: 103 = Keel 1997: 329, no. 663
29. Petrie 1934: Pl. 7: 217 = Keel 1997: 369, no. 777
30. Petrie 1934: Pl. 9: 281 = Keel 1997: 391, no. 841
31. Petrie 1934: Pl. 5: 50 = Keel 1997: 311, no. 611
32. Mackay and Murray 1952: Pl. 9: 55 = Keel 1997: 475, no. 1081
33. Kirkbride 1965: Fig. 302: 5
34. Petrie 1931: Pl. 13: 19 = Keel 1997: 111, no. 19
35. Petrie 1934: Pl. 7: 203 = Keel 1997: 365, no. 763
36. Price Williams 1977: Fig. 5: 5
37. Tufnell 1958: Pl. 30: 17
38. Tufnell 1958: Pl. 30: 29
39. Tufnell 1958: Pl. 32: 122
40. Petrie 1934: Pl. 9: 282 = Keel 1997: 391, no. 842
41. Price Williams 1977: Fig. 15: 2
42. Price Williams 1977: Fig. 48: 9

Design class 3A4 - Horus hawk with *ntr* and other signs

Design class 3B1a - cobras addorsed, 3B1b - addorsed and linked, 3B1d - addorsed linked and crowned



Design class 3B1c - cobras confronted



Plate 78

1. Kirkbride 1965: Fig. 295: 17
2. Petrie 1930: Pl. 7: 39
3. Starkey and Harding 1932: Pl. 43: 24
4. Price Williams 1977: Fig. 37: 3
5. Tufnell 1973: Fig. 3: 112
6. Tufnell 1958: Pl. 30: 3
7. Tufnell 1958: Pl. 30: 52
8. Tufnell 1958: Pl. 30: 65
9. Tufnell 1958: Pl. 32: 77
10. Tufnell 1958: Pl. 32: 79
11. Tufnell 1958: Pl. 32: 80
12. Macalister 1912: Pl. 206: 37
13. Macalister 1912: Pl. 206: 39
14. Macalister 1912: Pl. 207: 14
15. Giveon 1985: 113, no. 6
16. Petrie 1931: Pl. 13: 49 = Keel 1997: 119, no. 45
17. Petrie 1931: Pl. 13: 69 = Keel 1997: 125, no. 63
18. Petrie 1931: Pl. 14: 117 = Keel 1997: 143, no. 111
19. Petrie 1932: Pl. 7: 56 = Keel 1997: 191, no. 259
20. Petrie 1933: Pl. 3: 30 = Keel 1997: 239, no. 400
21. Petrie 1933: Pl. 3: 36 = Keel 1997: 241, no. 406
22. Petrie 1933: Pl. 3: 91 = Keel 1997: 259, no. 459
23. Petrie 1934: Pl. 5: 18 = Keel 1997: 299, no. 579
24. Petrie 1934: Pl. 5: 121 = Keel 1997: 335, no. 681
25. Petrie 1934: Pl. 7: 193 = Keel 1997: 361, no. 753
26. Petrie 1934: Pl. 9: 278 = Keel 1997: 391, no. 838
27. Petrie 1934: Pl. 9: 294 = Keel 1997: 397, no. 855
28. Mackay and Murray 1952: Pl. 9: 75 = Keel 1997: 481, no. 1101
29. Mackay and Murray 1952: Pl. 9: 82 = Keel 1997: 483, no. 1108
30. Petrie 1933: Pl. 4: 119 = Keel 1997: 269, no. 487
31. Petrie 1933: Pl. 4: 161 = Keel 1997: 281, no. 523
32. Petrie 1934: Pl. 5: 8 = Keel 1997: 297, no. 569
33. Petrie 1934: Pl. 11: 418 = Keel 1997: 435, no. 974
34. Petrie 1934: Pl. 11: 433 = Keel 1997: 441, no. 987
35. Macalister 1912: Pl. 204b: 2
36. Macalister 1912: Pl. 204b: 26
37. Macalister 1912: Pl. 206: 35
38. Macalister 1912: Pl. 207: 4
39. Macalister 1912: Pl. 208: 1
40. Macalister 1912: Pl. 208: 24
41. Giveon 1985: 113, no. 9
42. Tufnell 1958: Pl. 30: 53
43. Tufnell 1958: Pl. 32: 78
44. Tufnell 1958: Pl. 32: 122
45. Kirkbride 1965: Fig. 295: 19
46. Kirkbride 1965: Fig. 296: 7
47. Kirkbride 1965: Fig. 297: 15
48. Kirkbride 1965: Fig. 300: 22
49. Kirkbride 1965: 302: 5
50. Tufnell 1973: Fig. 2: 97
51. Price Williams 1977: Fig. 15: 2



Type b - red crowns addorsed

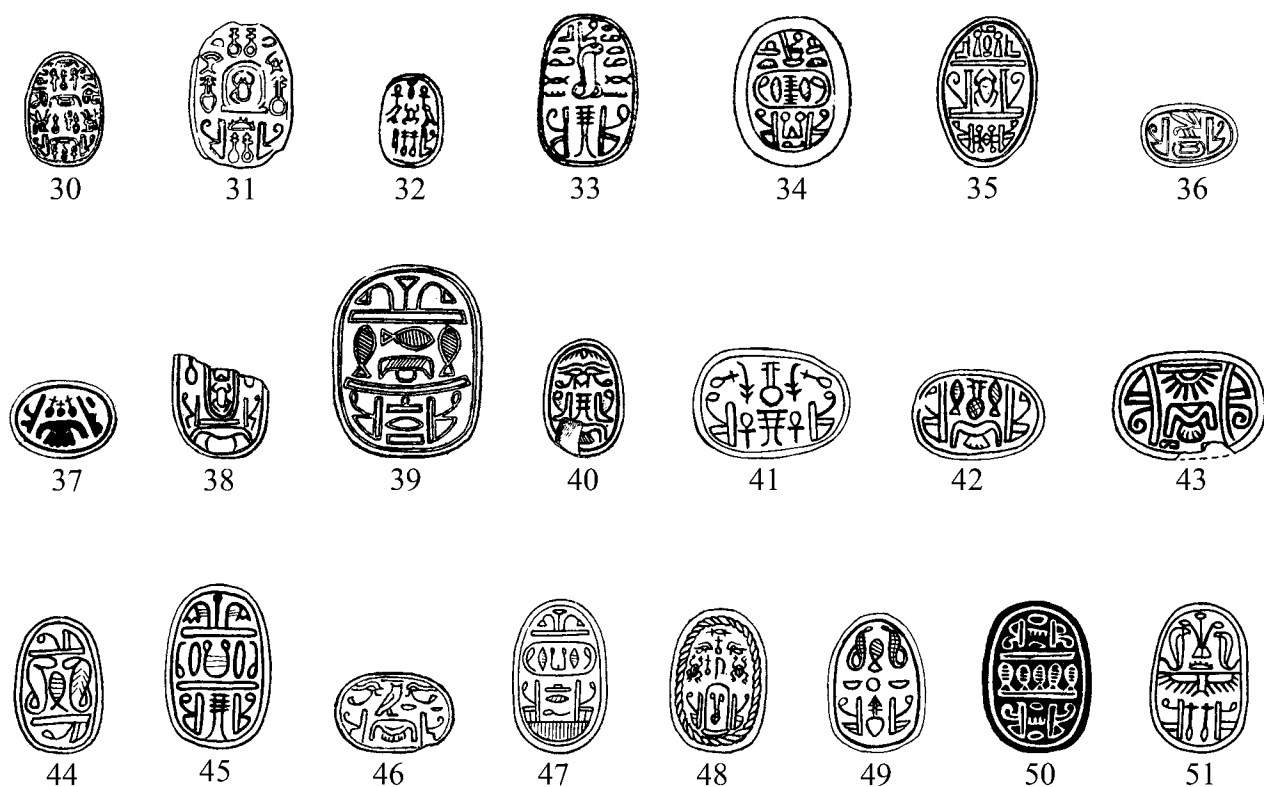


Plate 79

1. Tufnell 1958: Pl. 32: 118
2. Tufnell 1958: Pl. 32: 124
3. Macalister 1912: Pl. 204b: 2
4. Macalister 1912: Pl. 206: 34
5. Giveon 1985: 115, no. 10
6. Petrie 1933: Pl. 3: 85 = Keel 1997: 257, no. 453
7. Petrie 1934: Pl. 7: 198 = Keel 1997: 363, no. 758
8. Mackay and Murray 1952: Pl. 10: 102 = Keel 1997: 489, no. 1128
9. Kirkbride 1965: Fig. 294: 12
10. Kirkbride 1965: Fig. 298: 5
11. Kirkbride 1965: Fig. 303: 11
12. Tufnell 1958: Pl. 30: 55
13. Tufnell 1958: Pl. 32: 121
14. Petrie 1931: Pl. 13: 50 = Keel 1997: 121, no. 46
15. Petrie 1933: Pl. 4: 180 = Keel 1997: 287, no. 541
16. Petrie 1934: Pl. 7: 237 = Keel 1997: 375, no. 797
17. Petrie 1934: Pl. 9: 360 = Keel 1997: 417, no. 917
18. Petrie 1934: Pl. 11: 475 = Keel 1997: 453, no. 1026
19. Mackay and Murray 1952: Pl. 10: 101 = Keel 1997: 489, no. 1127
20. Petrie 1931: Pl. 14: 117 = Keel 1997: 143, no. 111
21. Petrie 1931: Pl. 14: 149 = Keel 1997: 153, no. 143
22. Petrie 1933: Pl. 3: 8 = Keel 1997: 231, no. 378
23. Petrie 1933: Pl. 3: 85 = Keel 1997: 257, no. 453
24. Petrie 1933: Pl. 4: 119 = Keel 1997: 269, no. 487
25. Petrie 1934: Pl. 5: 3 = Keel 1997: 295, no. 564
26. Mackay and Murray 1952: Pl. 9: 78 = Keel 1997: 483, no. 1104
27. Petrie 1934: Pl. 7: 240 = Keel 1997: 377, no. 800
28. Petrie 1934: Pl. 11: 425 = Keel 1997: 437, no. 980
29. Mackay and Murray 1952: Pl. 9: 66 = Keel 1997: 477, no. 1092
30. Kirkbride 1965: Fig. 291: 9
31. Kirkbride 1965: Fig. 296: 7
32. Kirkbride 1965: Fig. 296: 9
33. Kirkbride 1965: Fig. 299: 14
34. Kirkbride 1965: Fig. 300: 22
35. Tufnell 1973: Fig. 1: 35
36. Tufnell 1973: Fig. 2: 91
37. Tufnell 1973: Fig. 3: 131
38. Price Williams 1977: Fig. 5: 5
39. Price Williams 1977: Fig. 63: 2
40. Price Williams 1977: Fig. 96: 1
41. Tufnell 1958: Pl. 30: 52
42. Tufnell 1958: Pl. 36: 204
43. Petrie 1931: Pl. 14: 91 = Keel 1997: 133, no. 85
44. Petrie 1931: Pl. 14: 110 = Keel 1997: 141, no. 104
45. Petrie 1931: Pl. 14: 114 = Keel 1997: 141, no. 108
46. Petrie 1932: Pl. 8: 147 = Keel 1997: 221, no. 349
47. Petrie 1933: Pl. 3: 99 = Keel 1997: 261, no. 467
48. Petrie 1933: Pl. 4: 134 = Keel 1997: 273, no. 500
49. Petrie 1933: Pl. 4: 146 = Keel 1997: 277, no. 511
50. Petrie 1934: Pl. 5: 19 = Keel 1997: 299, no. 580
51. Petrie 1934: Pl. 7: 144 = Keel 1997: 343, no. 704



Type e - red crowns tête bêche



Design class 3B4 - Horus eyes (*wd3t*)



Design class 3B5 - sedge plants (*swt*)

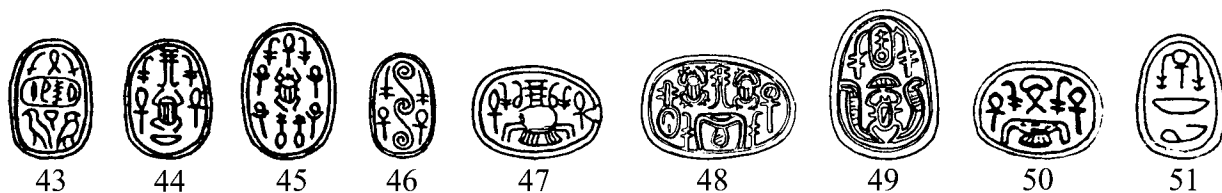


Plate 80

1. Petrie 1934: Pl. 7: 162 = Keel 1997: 349, no. 722
2. Petrie 1934: Pl. 7: 209 = Keel 1997: 365, no. 769
3. Petrie 1934: Pl. 7: 265 = Keel 1997: 385, no. 825
4. Petrie 1934: Pl. 9 (no number) = Keel 1997: 395, no. 854
5. Petrie 1934: Pl. 9: 324 = Keel 1997: 405, no. 885
6. Mackay and Murray 1952: Pl. 9: 76 = Keel 1997: 481, no. 1102
7. Mackay and Murray 1952: Pl. 9: 81 = Keel 1997: 483, no. 1107
8. Mackay and Murray 1952: Pl. 9: 84 = Keel 1997: 483, no. 1110
9. Mackay and Murray 1952: Pl. 10: 100 = Keel 1997: 489, no. 1126
10. Kirkbride 1965: Fig. 290: 26
11. Kirkbride 1965: Fig. 294: 7
12. Kirkbride 1965: Fig. 295: 14
13. Kirkbride 1965: Fig. 295: 18
14. Kirkbride 1965: Fig. 298: 6
15. Kirkbride 1965: Fig. 299: 14
16. Kirkbride 1965: Fig. 300: 21
17. Tufnell 1973: Fig. 1: 35
18. Tufnell 1973: Fig. 1: 36
19. Tufnell 1973: Fig. 3: 131
20. Tufnell 1958: Pl. 30: 17
21. Tufnell 1958: Pl. 30: 50
22. Tufnell 1958: Pl. 32: 85
23. Tufnell 1958: Pl. 36: 200
24. Tufnell 1958: Pl. 36: 201
25. Tufnell 1958: Pl. 36: 204
26. Petrie 1930: Pl. 10: 61
27. Petrie 1930: Pl. 10: 68
28. Starkey and Harding 1932: Pl. 44: 51
29. Price Williams 1977: Fig. 5: 5
30. Price Williams 1977: Fig. 37: 9
31. Kirkbride 1965: Fig. 290: 19
32. Kirkbride 1965: Fig. 295: 22
33. Kirkbride 1965: Fig. 296: 7
34. Kirkbride 1965: Fig. 297: 14
35. Kirkbride 1965: Fig. 298: 11
36. Kirkbride 1965: Fig. 299: 9
37. Kirkbride 1965: Fig. 299: 14
38. Kirkbride 1965: Fig. 299: 24
39. Kirkbride 1965: Fig. 300: 24
40. Petrie 1930: Pl. 10: 68
41. Price Williams 1977: Fig. 15: 1
42. Price Williams 1977: Fig. 37: 3
43. Tufnell 1958: Pl. 30: 18
44. Tufnell 1958: Pl. 30: 52



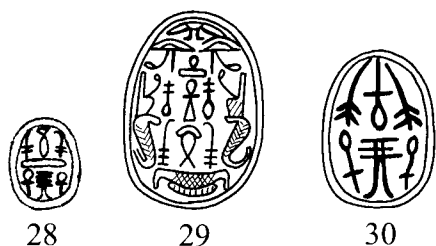
1 2 3 4 5 6 7 8 9



10 11 12 13 14 15 16 17 18



19 20 21 22 23 24 25 26 27

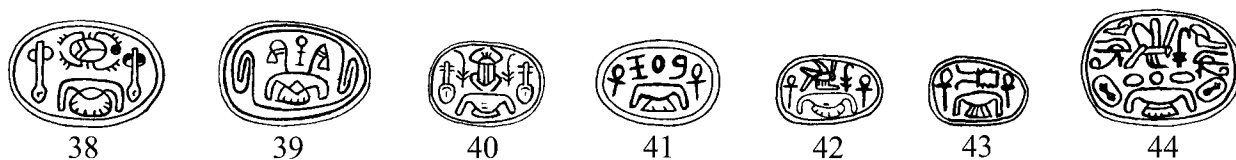


28 29 30

Design class 3B6 - gold sign (*nbw*) in longitudinal setting



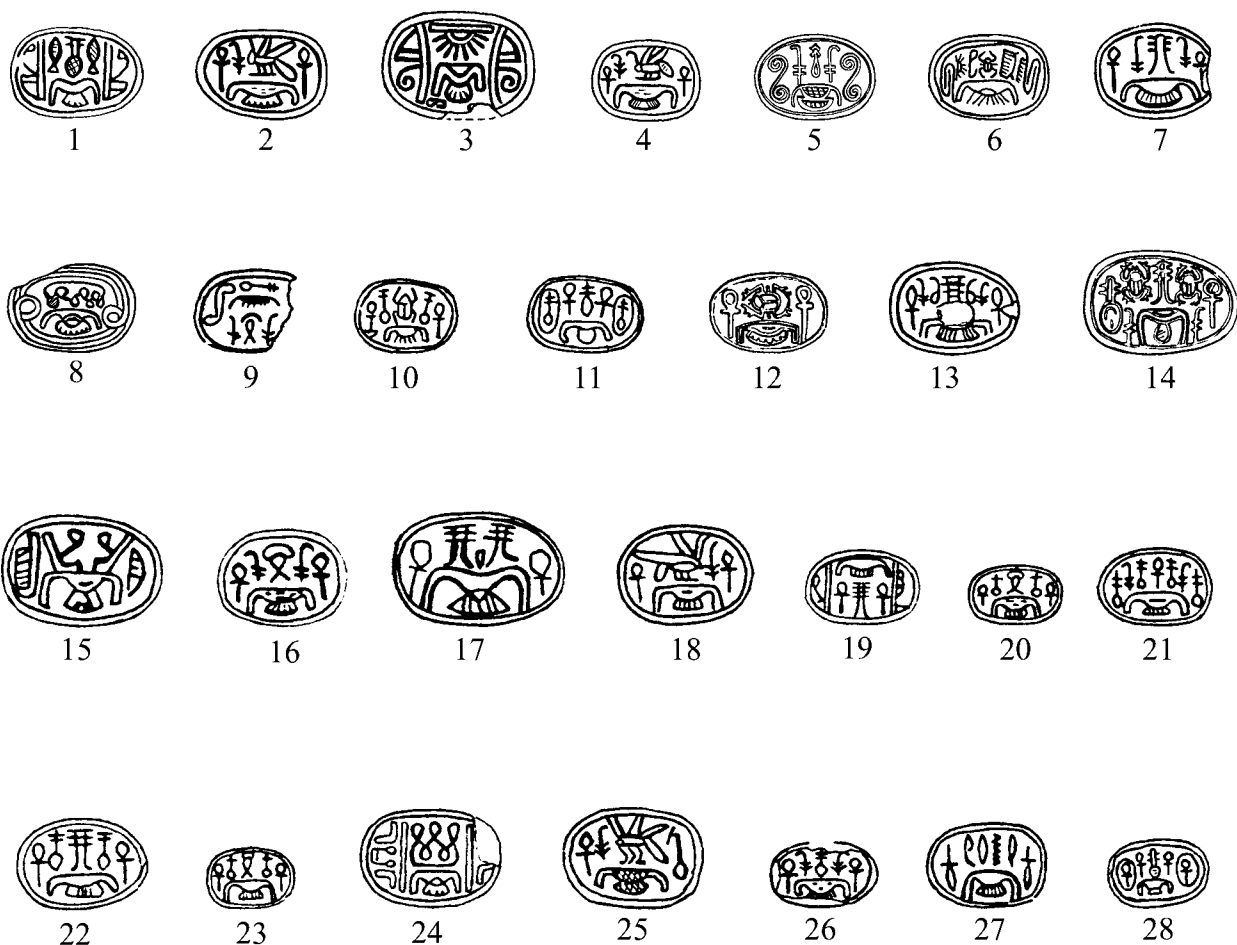
31 32 33 34 35 36 37



38 39 40 41 42 43 44

Plate 81

1. Tufnell 1958: Pl. 30: 53
2. Tufnell 1958: Pl. 30: 65
3. Tufnell 1958: Pl. 32: 78
4. Tufnell 1958: Pl. 32: 79
5. Tufnell 1958: Pl. 32: 94
6. Tufnell 1958: Pl. 32: 101
7. Tufnell 1958: Pl. 36: 200
8. Tufnell 1958: Pl. 36: 202
9. Petrie 1931: Pl. 13: 19 = Keel 1997: 111, no. 19
10. Petrie 1931: Pl. 13: 70 = Keel 1997: 125, no. 64
11. Petrie 1933: Pl. 3: 38 = Keel 1997: 241, no. 407
12. Petrie 1933: Pl. 3: 47 = Keel 1997: 245, no. 416
13. Petrie 1933: Pl. 3: 99 = Keel 1997: 261, no. 467
14. Petrie 1933: Pl. 4: 134 = Keel 1997: 273, no. 500
15. Petrie 1934: Pl. 5: 10 = Keel 1997: 297, no. 571
16. Petrie 1934: Pl. 5: 19 = Keel 1997: 299, no. 580
17. Petrie 1934: Pl. 5: 80 = Keel 1997: 321, no. 640
18. Petrie 1934: Pl. 7: 193 = Keel 1997: 361, no. 753
19. Petrie 1934: Pl. 7: 214 = Keel 1997: 367, no. 774
20. Petrie 1934: Pl. 9: 306 = Keel 1997: 401, no. 867
21. Petrie 1934: Pl. 9: 324 = Keel 1997: 405, no. 885
22. Petrie 1934: Pl. 11: 434 = Keel 1997: 441, no. 988
23. Petrie 1934: Pl. 11: 468 = Keel 1997: 451, no. 1019
24. Mackay and Murray 1952: Pl. 9: 74 = Keel 1997: 481, no. 1100
25. Mackay and Murray 1952: Pl. 9: 75 = Keel 1997: 481, no. 1101
26. Mackay and Murray 1952: Pl. 9: 76 = Keel 1997: 481, no. 1102
27. Mackay and Murray 1952: Pl. 9: 79 = Keel 1997: 483, no. 1105
28. Mackay and Murray 1952: Pl. 9: 80 = Keel 1997: 483, no. 1106
29. Tufnell 1958: Pl. 30: 52
30. Keel 2002: Fig. 3
31. Keel 2002: Fig. 4
32. Keel 2002: Fig. 5
33. Keel 2002: Fig.13
34. Keel 2002: Fig. 16
35. Keel 2002: Fig. 19
36. Keel 2002: Fig. 21
37. Ben-Tor 2004d: Fig. 3



Design class 3B7 - forepart of lion (*h3t*)



Design class 3B8 - groups of three signs comprising the name of Ptah

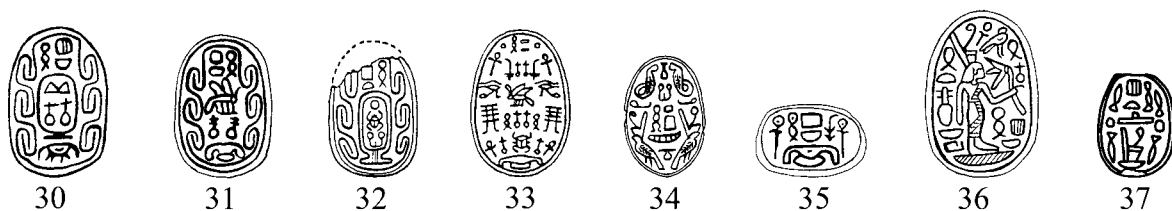


Plate 82

1. Petrie 1931: Pl. 13: 11 = Keel 1997: 109, no. 11
2. Petrie 1931: Pl. 13: 12 = Keel 1997: 109, no. 12
3. Petrie 1931: Pl. 13: 40 = Keel 1997: 117, no. 36
4. Petrie 1931: Pl. 13: 79 = Keel 1997: 129, no. 73
5. Petrie 1931: Pl. 14: 89 = Keel 1997: 133, no. 83
6. Petrie 1931: Pl. 14: 91 = Keel 1997: 133, no. 85
7. Petrie 1931: Pl. 14: 97 = Keel 1997: 135, no. 91
8. Petrie 1931: Pl. 14: 111 = Keel 1997: 141, no. 105
9. Petrie 1931: Pl. 14: 151 = Keel 1997: 155, no. 145
10. Petrie 1931: Pl. 14: 155 = Keel 1997: 155, no. 149
11. Petrie 1931: Pl. 14: 180 = Keel 1997: 165, no. 174
12. Petrie 1931: Pl. 14: 181 = Keel 1997: 165, no. 175
13. Petrie 1932: Pl. 8: 156 = Keel 1997: 223, no. 358
14. Petrie 1933: Pl. 3: 8 = Keel 1997: 231, no. 378
15. Petrie 1933: Pl. 3: 11 = Keel 1997: 233, no. 381
16. Petrie 1933: Pl. 3: 17 = Keel 1997: 235, no. 387
17. Petrie 1933: Pl. 3: 20 = Keel 1997: 235, no. 390
18. Petrie 1933: Pl. 3: 79 = Keel 1997: 255, no. 447
19. Petrie 1933: Pl. 3: 95 = Keel 1997: 261, no. 463
20. Petrie 1933: Pl. 3: 98 = Keel 1997: 261, no. 466
21. Petrie 1933: Pl. 4: 118 = Keel 1997: 269, no. 486
22. Petrie 1933: Pl. 4: 180 = Keel 1997: 287, no. 541
23. Petrie 1934: Pl. 5: 35 = Keel 1997: 305, no. 596
24. Petrie 1934: Pl. 5: 37 = Keel 1997: 307, no. 598
25. Petrie 1934: Pl. 5: 41 = Keel 1997: 307, no. 602
26. Petrie 1934: Pl. 5: 43 = Keel 1997: 309, no. 604
27. Petrie 1934: Pl. 5: 54 = Keel 1997: 311, no. 615
28. Petrie 1934: Pl. 5: 68 = Keel 1997: 317, no. 628
29. Petrie 1934: Pl. 5: 69 = Keel 1997: 317, no. 629
30. Petrie 1934: Pl. 5: 84 = Keel 1997: 323, no. 644
31. Petrie 1934: Pl. 5: 92 = Keel 1997: 325, no. 652
32. Petrie 1934: Pl. 5: 106 = Keel 1997: 329, no. 666
33. Petrie 1934: Pl. 5: 112 = Keel 1997: 331, no. 672
34. Petrie 1934: Pl. 5: 118 = Keel 1997: 335, no. 678
35. Petrie 1934: Pl. 5: 123 = Keel 1997: 337, no. 683
36. Petrie 1934: Pl. 5: 134 = Keel 1997: 339, no. 694
37. Petrie 1934: Pl. 5: 139 = Keel 1997: 341, no. 699
38. Petrie 1934: Pl. 7: 146 = Keel 1997: 345, no. 706
39. Petrie 1934: Pl. 7: 162 = Keel 1997: 349, no. 722
40. Petrie 1934: Pl. 7: 165 = Keel 1997: 351, no. 725
41. Petrie 1934: Pl. 7: 203 = Keel 1997: 365, no. 763
42. Petrie 1934: Pl. 7: 210 = Keel 1997: 367, no. 770
43. Petrie 1934: Pl. 7: 244 = Keel 1997: 379, no. 804
44. Petrie 1934: Pl. 9: 271 = Keel 1997: 387, no. 831
45. Petrie 1934: Pl. 9: 334 = Keel 1997: 409, no. 895
46. Petrie 1934: Pl. 9: 339 = Keel 1997: 411, no. 900
47. Petrie 1934: Pl. 11: 398 = Keel 1997: 429, no. 954
48. Petrie 1934: Pl. 11: 406 = Keel 1997: 431, no. 962
49. Petrie 1934: Pl. 11: 418 = Keel 1997: 435, no. 974
50. Petrie 1934: Pl. 11: 433 = Keel 1997: 441, no. 987
51. Petrie 1934: Pl. 11: 439 = Keel 1997: 443, no. 992
52. Petrie 1934: Pl. 11: 461 = Keel 1997: 449, no. 1011
53. Petrie 1934: Pl. 11: 462 = Keel 1997: 449, no. 1013

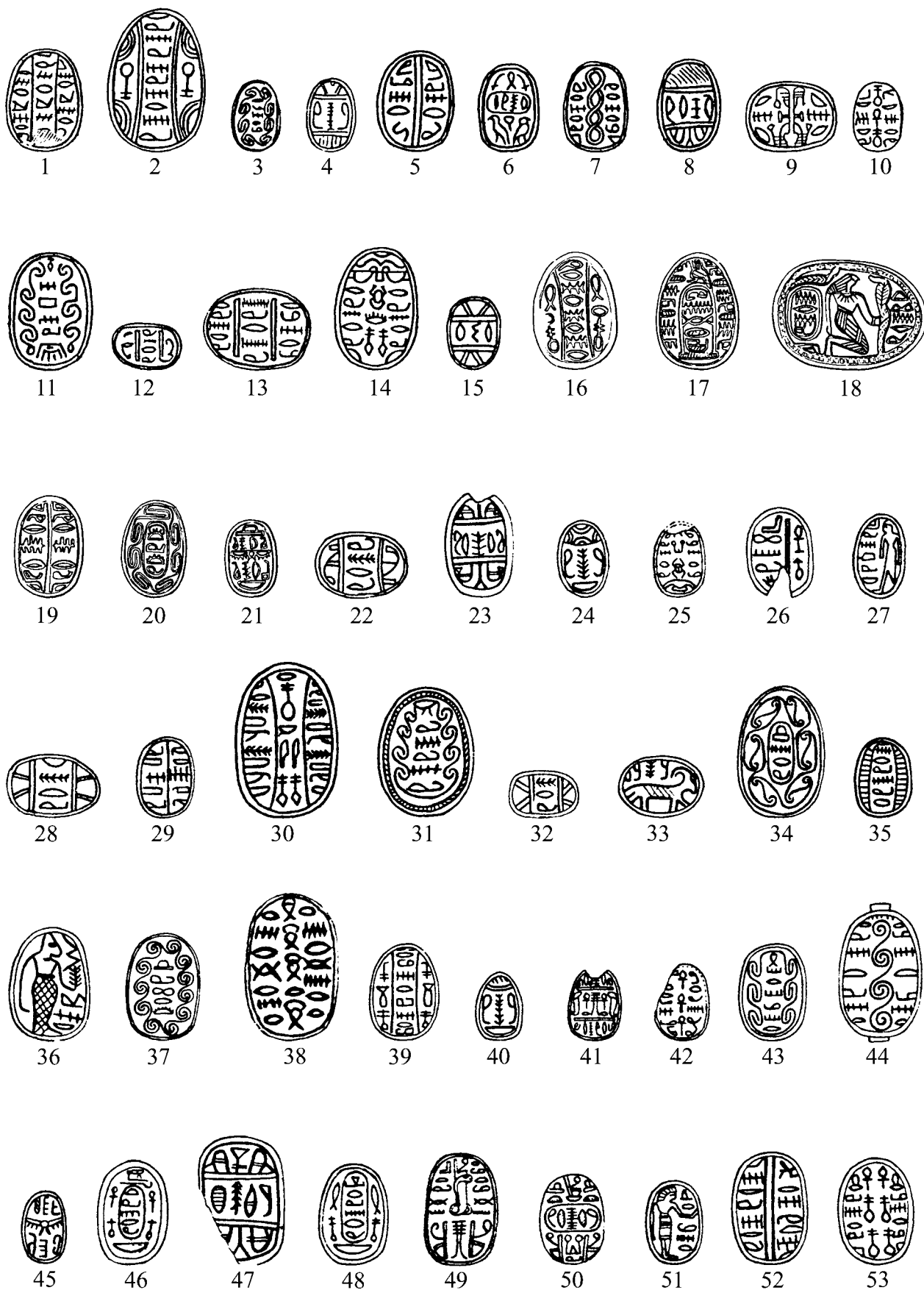


Plate 83

1. Petrie 1934: Pl. 11: 464 = Keel 1997: 449, no. 1015
2. Petrie 1934: Pl. 11: 465 = Keel 1997: 449, no. 1016
3. Petrie 1934: Pl. 11: 477 = Keel 1997: 453, no. 1028
4. Mackay and Murray 1952: Pl. 9: 56 = Keel 1997: 475, no. 1082
5. Mackay and Murray 1952: Pl. 9: 59 = Keel 1997: 475, no. 1085
6. Mackay and Murray 1952: Pl. 9: 60 = Keel 1997: 475, no. 1086
7. Mackay and Murray 1952: Pl. 9: 63 = Keel 1997: 477, no. 1089
8. Mackay and Murray 1952: Pl. 9: 70 = Keel 1997: 479, no. 1096
9. Mackay and Murray 1952: Pl. 9: 72 = Keel 1997: 481, no. 1098
10. Mackay and Murray 1952: Pl. 9: 79 = Keel 1997: 483, no. 1105
11. Mackay and Murray 1952: Pl. 10: 94 = Keel 1997: 487, no. 1120
12. Keel 1997: 517, no. 1213
13. Kirkbride 1965: Fig. 290: 27
14. Kirkbride 1965: Fig. 291: 5
15. Kirkbride 1965: Fig. 292: 14
16. Kirkbride 1965: Fig. 292: 20
17. Kirkbride 1965: Fig. 293: 7
18. Kirkbride 1965: Fig. 293: 10
19. Kirkbride 1965: Fig. 295: 3
20. Kirkbride 1965: Fig. 295: 6
21. Kirkbride 1965: Fig. 295: 19
22. Kirkbride 1965: Fig. 296: 10
23. Kirkbride 1965: Fig. 296: 12
24. Kirkbride 1965: Fig. 297: 15
25. Kirkbride 1965: Fig. 298: 7
26. Kirkbride 1965: Fig. 298: 12
27. Kirkbride 1965: Fig. 300: 26
28. Kirkbride 1965: Fig. 300: 30
29. Kirkbride 1965: Fig. 301: 1
30. Kirkbride 1965: Fig. 301: 3
31. Kirkbride 1965: Fig. 302: 2
32. Kirkbride 1965: Fig. 302: 18
33. Kirkbride 1965: Fig. 303: 14
34. Petrie 1930: Pl. 7: 40
35. Petrie 1930: Pl. 7: 42
36. Petrie 1930: Pl. 7: 52
37. Petrie 1930: Pl. 10: 58
38. Petrie 1930: Pl. 10: 59
39. Petrie 1930: Pl. 10: 63
40. Petrie 1930: Pl. 10: 74
41. Petrie 1930: Pl. 12: 112
42. Starkey and Harding 1932: Pl. 44: 47
43. Starkey and Harding 1932: Pl. 44: 65
44. Price Williams 1977: Fig. 15: 1
45. Price Williams 1977: Fig. 15: 5
46. Price Williams 1977: Fig. 19: 3
47. Price Williams 1977: Fig. 27: 4
48. Price Williams 1977: Fig. 32: 2
49. Price Williams 1977: Fig. 37: 7



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20



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Plate 84

1. Price Williams 1977: Fig. 48: 10
2. Price Williams 1977: Fig. 48: 13
3. Price Williams 1977: Fig. 59: 4
4. Price Williams 1977: Fig. 93: 1
5. Macalister 1912: Pl. 203a: 19
6. Macalister 1912: Pl. 203b: 12
7. Macalister 1912: Pl. 206: 3
8. Macalister 1912: Pl. 206: 9
9. Macalister 1912: Pl. 206: 24
10. Macalister 1912: Pl. 206: 25
11. Macalister 1912: Pl. 206: 27
12. Macalister 1912: Pl. 206: 30
13. Macalister 1912: Pl. 206: 45
14. Macalister 1912: Pl. 206: 46
15. Macalister 1912: Pl. 208: 1
16. Macalister 1912: Pl. 209: 6
17. Giveon 1985: 111, no. 3
18. Giveon 1985: 115, no. 15
19. Tufnell 1958: Pl. 30: 20
20. Tufnell 1958: Pl. 30: 23
21. Tufnell 1958: Pl. 30: 35
22. Tufnell 1958: Pl. 30: 45
23. Tufnell 1958: Pl. 30: 51
24. Tufnell 1958: Pl. 30: 54
25. Tufnell 1958: Pl. 30: 55
26. Tufnell 1958: Pl. 32: 87
27. Tufnell 1958: Pl. 32: 88
28. Tufnell 1958: Pl. 32: 90
29. Tufnell 1958: Pl. 32: 104
30. Tufnell 1958: Pl. 32: 105
31. Tufnell 1958: Pl. 34: 158
32. Tufnell 1958: Pl. 34: 159
33. Tufnell 1958: Pl. 34: 160
34. Tufnell 1958: Pl. 34: 161
35. Tufnell 1958: Pl. 36: 232

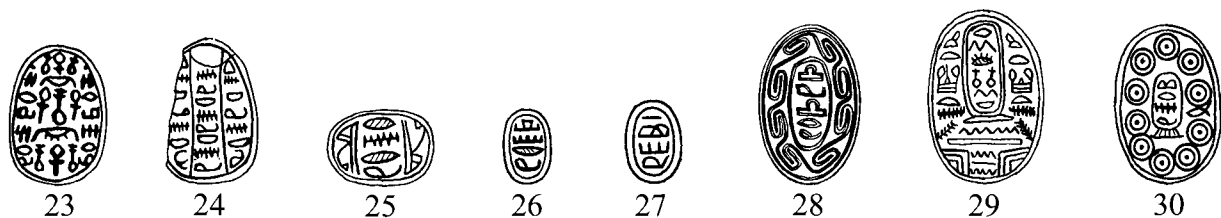
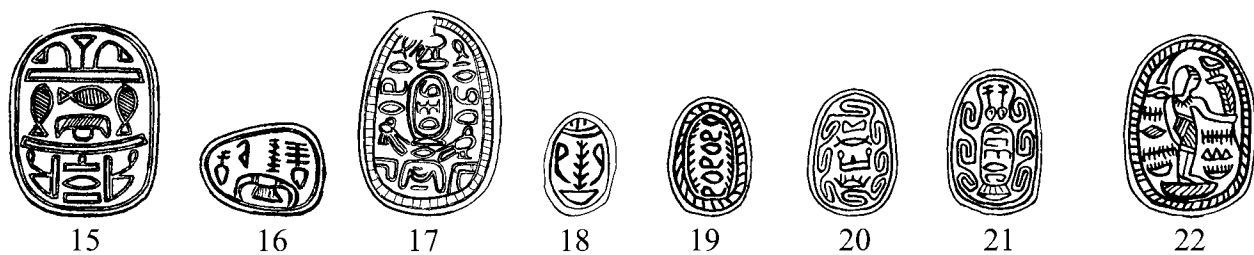
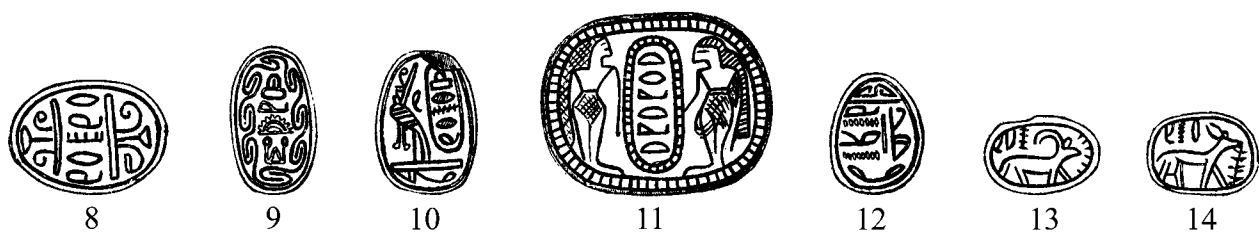
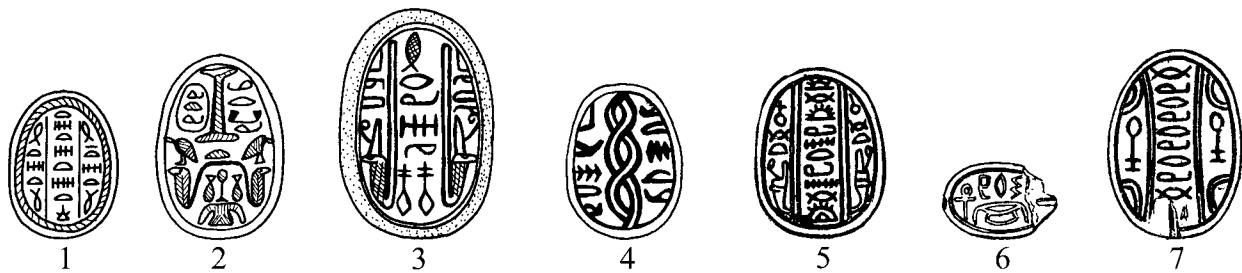


Plate 85

1. Kirkbride 1965: Fig. 290: 27
2. Kirkbride 1965: Fig. 292: 14
3. Kirkbride 1965: Fig. 293: 10
4. Kirkbride 1965: Fig. 295: 6
5. Kirkbride 1965: Fig. 295: 11
6. Kirkbride 1965: Fig. 297: 15
7. Kirkbride 1965: Fig. 302: 15
8. Petrie 1930: Pl. 7: 40
9. Starkey and Harding 1932: Pl. 43: 24
10. Price Williams 1977: Fig. 27: 4
11. Price Williams 1977: Fig. 27: 6
12. Macalister 1912: Pl. 203b: 1
13. Macalister 1912: Pl. 206: 25
14. Macalister 1912: Pl. 206: 27
15. Tufnell 1958: Pl. 30: 22
16. Tufnell 1958: Pl. 32: 90
17. Tufnell 1958: Pl. 34: 160
18. Petrie 1931: Pl. 13: 25 = Keel 1997: 113, no. 24
19. Petrie 1931: Pl. 14: 91 = Keel 1997: 133, no. 85
20. Petrie 1933: Pl. 3: 79 = Keel 1997: 255, no. 447
21. Petrie 1933: Pl. 3: 98 = Keel 1997: 261, no. 466
22. Petrie 1934: Pl. 5: 118 = Keel 1997: 335, no. 678
23. Petrie 1934: Pl. 9: 339 = Keel 1997: 411, no. 900
24. Petrie 1934: Pl. 11: 406 = Keel 1997: 431, no. 962
25. Petrie 1934: Pl. 11: 433 = Keel 1997: 441, no. 987
26. Mackay and Murray 1952: Pl. 9: 1 = Keel 1997: 455, no. 1029
27. Mackay and Murray 1952: Pl. 9: 56 = Keel 1997: 475, no. 1082
28. Mackay and Murray 1952: Pl. 9: 58 = Keel 1997: 475, no. 1084
29. Kirkbride 1965: Fig. 291: 7
30. Kirkbride 1965: Fig. 296: 12
31. Kirkbride 1965: Fig. 297: 13
32. Kirkbride 1965: Fig. 300: 27
33. Kirkbride 1965: Fig. 301: 3
34. Kirkbride 1965: Fig. 303: 8
35. Price Williams 1977: Fig. 15: 7
36. Macalister 1912: Pl. 207: 4
37. Giveon 1985: 111, no. 3
38. Tufnell 1958: Pl. 30: 35
39. Tufnell 1958: Pl. 30: 36
40. Tufnell 1958: Pl. 32: 104
41. Tufnell 1958: Pl. 32: 105
42. Tufnell 1958: Pl. 32: 134
43. Petrie 1931: Pl. 14: 117 = Keel 1997: 143, no. 111
44. Petrie 1933: Pl. 3: 20 = Keel 1997: 235, no. 390
45. Petrie 1934: Pl. 5: 3 = Keel 1997: 295, no. 564

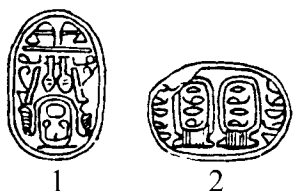


Design class 3D2 - cartouches, actual cartouches



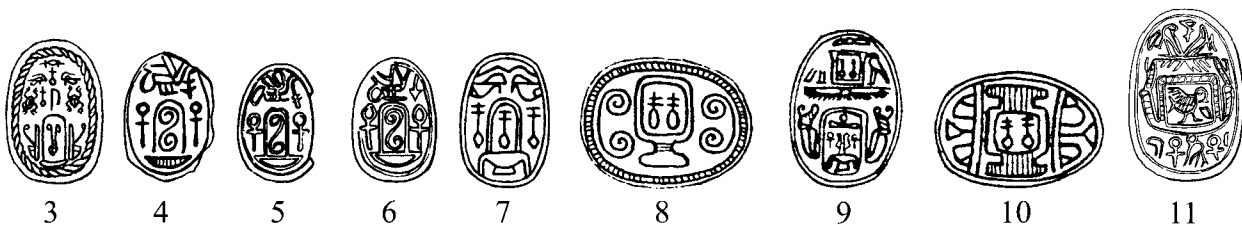
Plate 86

1. Mackay and Murray 1952: Pl. 9: 55 = Keel 1997: 475, no. 1081
2. Mackay and Murray 1952: Pl. 9: 59 = Keel 1997: 475, no. 1085
3. Kirkbride 1965: Fig. 300: 22
4. Keel 1997: 749, no. 4
5. Petrie 1933: Pl. 3: 36 = Keel 1997: 241, no. 406
6. Petrie 1933: Pl. 3: 91 = Keel 1997: 259, no. 459
7. Petrie 1934: Pl. 7: 240 = Keel 1997: 377, no. 800
8. Petrie 1932: Pl. 8: 158 = Keel 1997: 225, no. 360
9. Petrie 1934: Pl. 5: 50 = Keel 1997: 311, no. 611
10. Petrie 1934: Pl. 5: 56 = Keel 1997: 313, no. 617
11. Petrie 1933: Pl. 3: 84 = Keel 1997: 257, no. 452
12. Kirkbride 1965: Fig. 292: 16
13. Petrie 1930: Pl. 10: 74
14. Price Williams 1977: Fig. 48: 10
15. Price Williams 1977: Fig. 59: 4
16. Tufnell 1958: Pl. 30: 54
17. Tufnell 1958: Pl. 32: 70
18. Tufnell 1958: Pl. 34: 158
19. Tufnell 1958: Pl. 34: 159
20. Petrie 1931: Pl. 13: 11 = Keel 1997: 109, no. 11
21. Petrie 1933: Pl. 3: 17 = Keel 1997: 235, no. 387
22. Petrie 1934: Pl. 5: 84 = Keel 1997: 323, no. 644
23. Petrie 1934: Pl. 5: 132 = Keel 1997: 339, no. 692
24. Petrie 1934: Pl. 7: 162 = Keel 1997: 349, no. 722
25. Mackay and Murray 1952: Pl. 9: 72 = Keel 1997: 481, no. 1098
26. Mackay and Murray 1952: Pl. 9: 63 = Keel 1997: 477, no. 1089
27. Keel 1989: 223, no. 23
28. Keel 1989: 223, no. 24
29. Kirkbride 1965: Fig. 297: 4
30. Kirkbride 1965: Fig. 300: 8
31. Kirkbride 1965: Fig. 300: 11
32. Kirkbride 1965: Fig. 300: 20
33. Kirkbride 1965: Fig. 303: 10
34. Petrie 1930: Pl. 10: 95
35. Starkey and Harding 1932: Pl. 43: 39
36. Starkey and Harding 1932: Pl. 44: 72
37. Price Williams 1977: Fig. 19: 1
38. Price Williams 1977: Fig. 23: 1



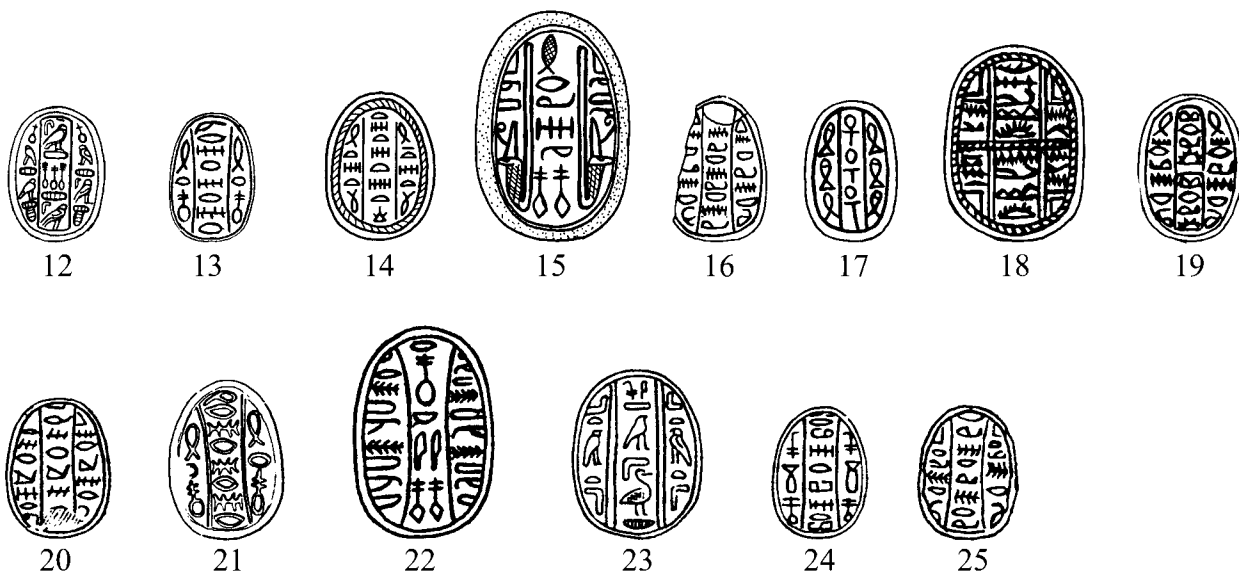
1 2

Design class 3D3 - cartouches, varia

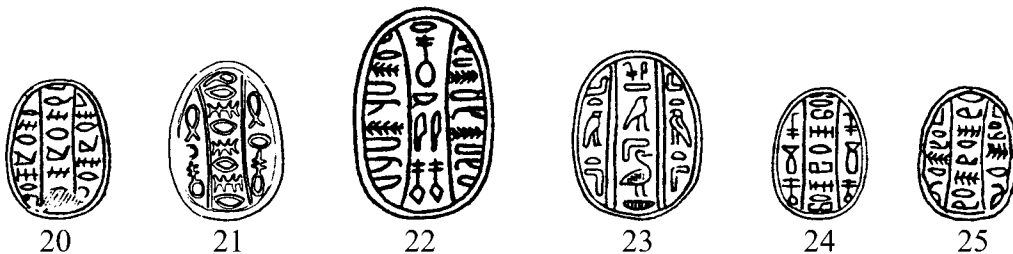


3 4 5 6 7 8 9 10 11

Design class 3E1 - panels, three or more signs in margins

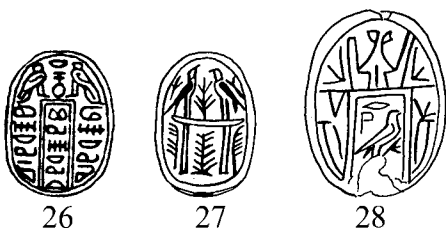


12 13 14 15 16 17 18 19



20 21 22 23 24 25

Design class 3E5 - panels, "shrine"



26 27 28

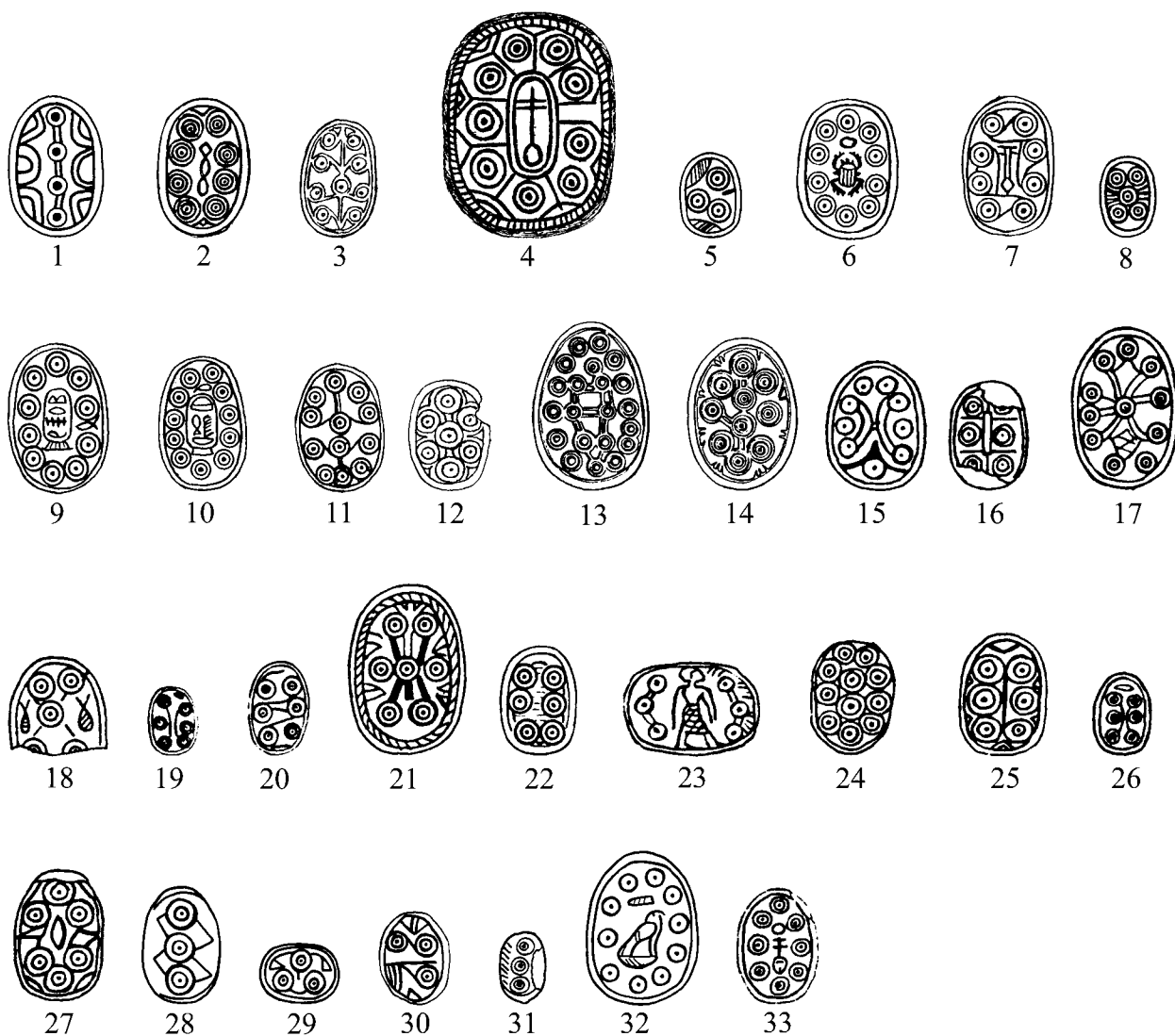
Design class 4 - concentric circles



29 30 31 32 33 34 35 36 37 38

Plate 87

1. Price Williams 1977: Fig. 44: 11
2. Macalister 1912: Pl. 203b: 11
3. Macalister 1912: Pl. 204b: 7
4. Macalister 1912: Pl. 206: 27
5. Giveon 1985: 123, no. 38
6. Tufnell 1958: Pl. 30: 1
7. Tufnell 1958: Pl. 30: 40
8. Tufnell 1958: Pl. 32: 69
9. Tufnell 1958: Pl. 32: 105
10. Tufnell 1958: Pl. 32: 134
11. Tufnell 1958: Pl. 34: 175
12. Tufnell 1958: Pl. 34: 176
13. Petrie 1933: Pl. 3: 10 = Keel 1997: 231, no. 380
14. Petrie 1933: Pl. 3: 88 = Keel 1997: 257, no. 456
15. Petrie 1933: Pl. 3: 100 = Keel 1997: 263, no. 468
16. Petrie 1933: Pl. 4: 148 = Keel 1997: 279, no. 513
17. Petrie 1934: Pl. 5: 66 = Keel 1997: 315, no. 626
18. Petrie 1934: Pl. 5: 75 = Keel 1997: 319, no. 635
19. Petrie 1934: Pl. 5: 116 = Keel 1997: 333, no. 676
20. Petrie 1934: Pl. 5: 141 = Keel 1997: 343, no. 701
21. Petrie 1934: Pl. 7: 177 = Keel 1997: 355, no. 737
22. Petrie 1934: Pl. 9: 376 = Keel 1997: 421, no. 932
23. Mackay and Murray 1952: Pl. 9: 32 = Keel 1997: 467, no. 1060
24. Mackay and Murray 1952: Pl. 10: 173 = Keel 1997: 511, no. 1199
25. Mackay and Murray 1952: Pl. 10: 175 = Keel 1997: 513, no. 1201
26. Mackay and Murray 1952: Pl. 10: 176 = Keel 1997: 513, no. 1202
27. Mackay and Murray 1952: Pl. 10: 177 = Keel 1997: 513, no. 1203
28. Petrie 1932: Pl. 7: 38 = Keel 1997: 185, no. 241
29. Petrie 1933: Pl. 4: 183 = Keel 1997: 289, no. 544
30. Petrie 1934: pl. 5: 44 = Keel 1997: 309, no. 605
31. Petrie 1934: Pl. 9: 292 = Keel 1997: 395, no. 852
32. Petrie 1933: pl. 8: 5 = Keel 1997: 293, no. 560
33. Mackay and Murray 1952: Pl. 9: 54 = Keel 1997: 473, no. 1080
34. Kirkbride 1965: Fig. 299: 11
35. Kirkbride 1965: Fig. 300: 8
36. Kirkbride 1965: Fig. 303: 3
37. Petrie 1930: Pl. 7: 41
38. Petrie 1931: Pl. 13: 42 = Keel 1997: 117, no. 38
39. Petrie 1933: Pl. 3: 12 = Keel 1997: 233, no. 382
40. Petrie 1934: Pl. 7: 150 = Keel 1997: 345, no. 710
41. Petrie 1934: Pl. 7: 196 = Keel 1997: 361, no. 756
42. Petrie 1934: Pl. 9: 275 = Keel 1997: 389, no. 835
43. Petrie 1934: Pl. 11: 435 = Keel 1997: 441, no. 989
44. Petrie 1934: Pl. 11: 469 = Keel 1997: 451, no. 1020
45. Mackay and Murray 1952: Pl. 10: 147 = Keel 1997: 503, no. 1173



Design class 5 - cross patterns

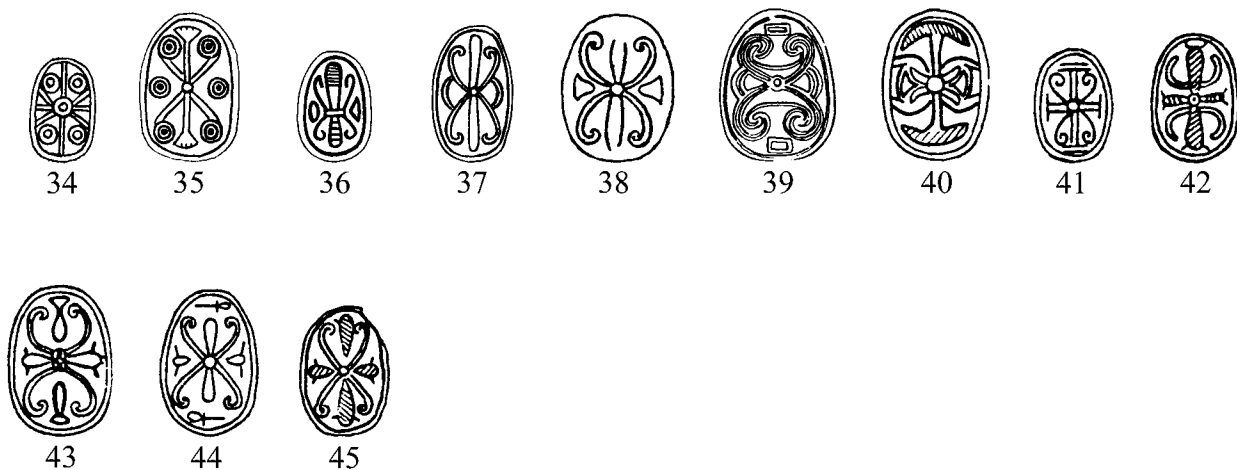


Plate 88

1. Kirkbride 1965: Fig. 303: 8
2. Price Williams 1977: Fig. 44: 10
3. Mackay and Murray 1952: Pl. 9: 74 = Keel 1997: 481, no. 1100
4. Price Williams 1977: Fig. 48: 8
5. Tufnell 1973: Fig. 2: 97
6. Petrie 1931: Pl. 13: 24 = Keel 1997: 113, no. 23
7. Petrie 1931: Pl. 13: 62 = Keel 1997: 123, no. 56
8. Petrie 1931: Pl. 13: 77 = Keel 1997: 129, no. 71
9. Petrie 1931: Pl. 14: 116 = Keel 1997: 143, no. 110
10. Petrie 1931: Pl. 13: 83 = Keel 1997: 131, no. 77
11. Petrie 1931: Pl. 14: 100 = Keel 1997: 137, no. 94
12. Petrie 1932: Pl. 8: 150 = Keel 1997: 221, no. 352
13. Petrie 1933: Pl. 3: 22 = Keel 1997: 237, no. 392
14. Petrie 1933: Pl. 3: 24 = Keel 1997: 237, no. 394
15. Petrie 1933: Pl. 3: 49 = Keel 1997: 245, no. 418
16. Petrie 1933: Pl. 3: 74 = Keel 1997: 253, no. 442
17. Petrie 1933: Pl. 3: 78 = Keel 1997: 253, no. 446
18. Petrie 1933: Pl. 3: 97 = Keel 1997: 261, no. 465
19. Petrie 1933: Pl. 4: 172 = Keel 1997: 285, no. 533
20. Petrie 1934: Pl. 5: 16 = Keel 1997: 299, no. 577
21. Petrie 1934: Pl. 5: 31 = Keel 1997: 305, no. 592
22. Petrie 1934: Pl. 5: 125 = Keel 1997: 337, no. 685
23. Petrie 1934: Pl. 7: 145 = Keel 1997: 343, no. 705
24. Petrie 1934: Pl. 7: 202 = Keel 1997: 363, no. 762
25. Petrie 1934: Pl. 7: 241 = Keel 1997: 377, no. 801
26. Petrie 1934: Pl. 7: 270 = Keel 1997: 387, no. 830
27. Petrie 1934: Pl. 9: 296 = Keel 1997: 397, no. 857
28. Petrie 1934: Pl. 9: 291 = Keel 1997: 395, no. 851
29. Petrie 1934: Pl. 9: 378 = Keel 1997: 421, no. 934
30. Petrie 1934: Pl. 11: 436 = Keel 1997: 441, no. 990
31. Mackay and Murray 1952: Pl. 10: 149 = Keel 1997: 503, no. 1175
32. Mackay and Murray 1952: Pl. 10: 150 = Keel 1997: 505, no. 1176
33. Mackay and Murray 1952: Pl. 10: 151 = Keel 1997: 505, no. 1177
34. Mackay and Murray 1952: Pl. 10: 152 = Keel 1997: 505, no. 1178
35. Mackay and Murray 1952: Pl. 10: 154 = Keel 1997: 505, no. 1180
36. Mackay and Murray 1952: Pl. 10: 155 = Keel 1997: 507, no. 1181
37. Mackay and Murray 1952: Pl. 10: 156 = Keel 1997: 507, no. 1182
38. Mackay and Murray 1952: Pl. 10: 157 = Keel 1997: 507, no. 1183
39. Macalister 1912: Pl. 203b: 9
40. Macalister 1912: Pl. 205a: 1
41. Macalister 1912: Pl. 206: 1
42. Macalister 1912: Pl. 206: 32
43. Macalister 1912: Pl. 207: 7
44. Macalister 1912: Pl. 209: 1
45. Macalister 1912: Pl. 209: 2
46. Kirkbride 1965: Fig. 290: 12
47. Kirkbride 1965: Fig. 293: 13
48. Kirkbride 1965: Fig. 294: 5
49. Kirkbride 1965: Fig. 299: 12
50. Kirkbride 1965: Fig. 303: 6



Design class 6B2 - convoluted coils

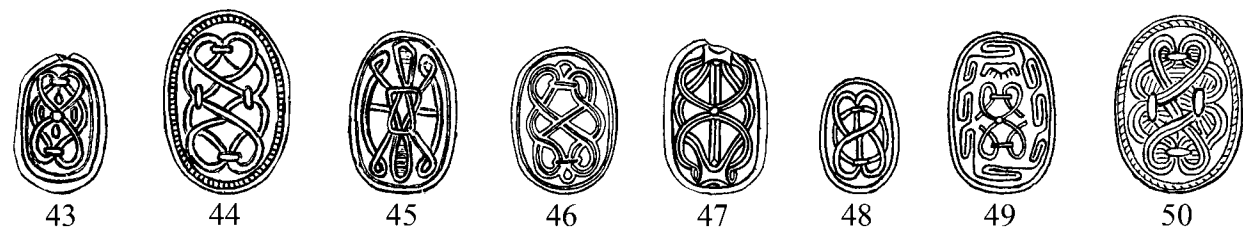
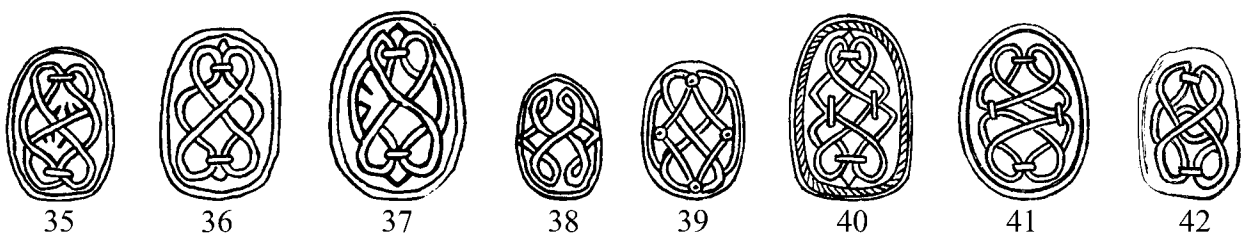
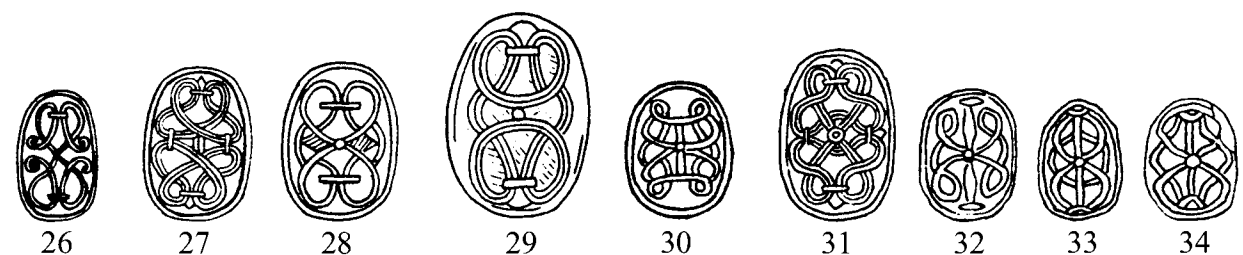
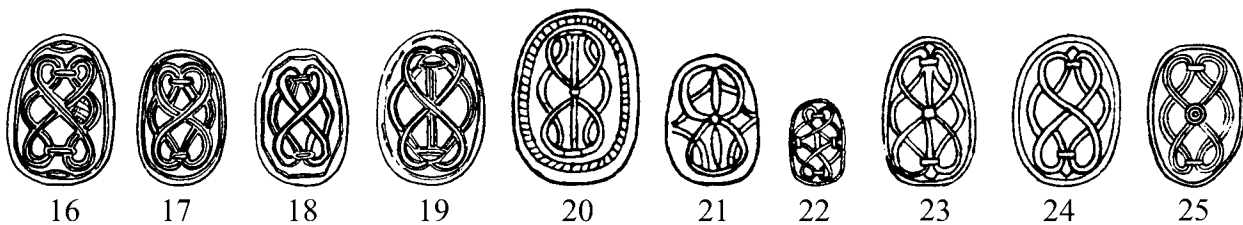
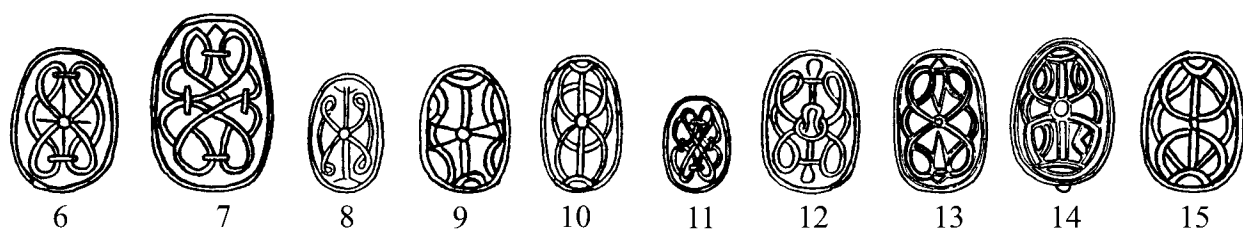
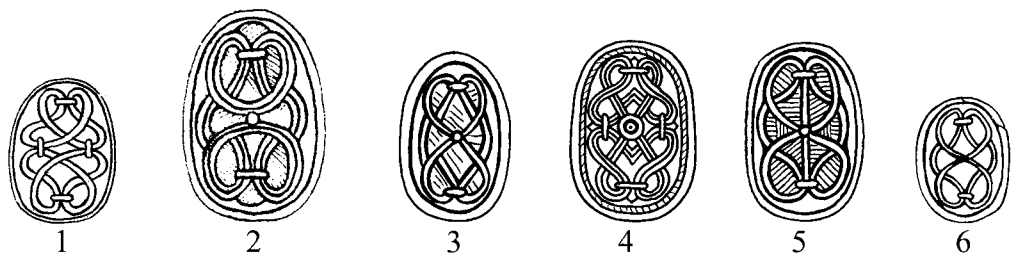
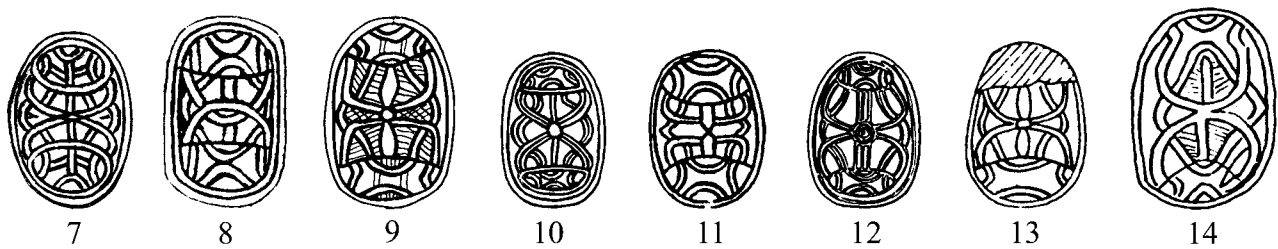


Plate 89

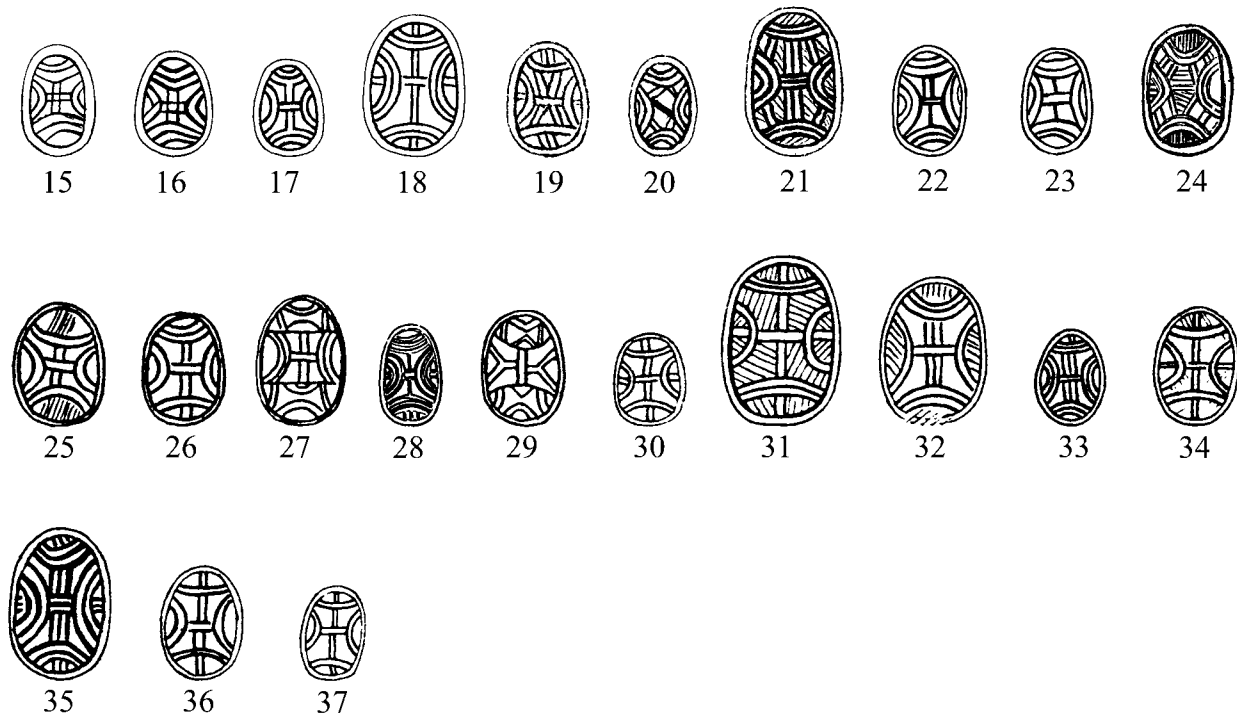
1. Petrie 1930: Pl. 22: 214
2. Starkey and Harding 1932: Pl. 43: 7
3. Price Williams 1977: Fig. 59: 3
4. Price Williams 1977: Fig. 87: 2
5. Tufnell 1958: Pl. 32: 82
6. Tufnell 1958: Pl. 34: 178
7. Macalister 1912: Pl. 208: 11
8. Starkey and Harding 1932: Pl. 43: 30
9. Tufnell 1958: Pl. 30: 31
10. Tufnell 1958: Pl. 34: 177
11. Petrie 1931: Pl. 14: 122 = Keel 1997: 145, no. 116
12. Petrie 1933: Pl. 3: 3 = Keel 1997: 229, no. 373
13. Petrie 1934: pl. 5: 133 = Keel 1997: 339, no. 693
14. Mackay and Murray 1952: Pl. 10: 153 = Keel 1997: 505, no. 1179
15. Kirkbride 1965: Fig. 283: 4
16. Kirkbride 1965: Fig. 297: 2
17. Kirkbride 1965: Fig. 300: 17
18. Kirkbride 1965: Fig. 302: 12
19. Starkey and Harding 1932: Pl. 43: 16
20. Starkey and Harding 1932: Pl. 43: 21
21. Starkey and Harding 1932: Pl. 44: 68
22. Price Williams 1977: Fig. 37: 4
23. Tufnell 1958: Pl. 32: 113
24. Macalister 1912: Pl. 209: 9
25. Petrie 1931: Pl. 13: 38 = Keel 1997: 117, no. 34
26. Petrie 1931: Pl. 14: 109 = Keel 1997: 139, no. 103
27. Petrie 1931: Pl. 14: 176 = Keel 1997: 163, no. 170
28. Petrie 1933: Pl. 3: 42 = Keel 1997: 243, no. 411
29. Petrie 1933: Pl. 4: 173 = Keel 1997: 285, no. 534
30. Petrie 1934: Pl. 5: 23 = Keel 1997: 301, no. 584
31. Petrie 1934: Pl. 5: 99 = Keel 1997: 327, no. 659
32. Petrie 1934: Pl. 7: 153 = Keel 1997: 347, no. 713
33. Petrie 1934: Pl. 7: 173 = Keel 1997: 353, no. 733
34. Petrie 1934: Pl. 7: 200 = Keel 1997: 363, no. 760
35. Petrie 1934: Pl. 7: 222 = Keel 1997: 371, no. 782
36. Petrie 1934: Pl. 9: 342 = Keel 1997: 411, no. 902
37. Petrie 1934: Pl. 9: 383 = Keel 1997: 423, no. 939
38. Kirkbride 1965: Fig. 294: 3
39. Kirkbride 1965: Fig. 296: 2
40. Kirkbride 1965: Fig. 298: 2
41. Starkey and Harding 1932: Pl. 44: 71
42. Price Williams 1977: Fig. 44: 1
43. Price Williams 1977: Fig. 59: 2
44. Tufnell 1958: Pl. 30: 32
45. Tufnell 1958: Pl. 30: 61
46. Tufnell 1958: Pl. 34: 182
47. Tufnell 1958: Pl. 34: 194
48. Giveon 1985: 123, no. 36



Design class 6B3 - convoluted coils, varia



Design class 6C1 - encompassed coils, central + cross



Design class 6C2 - encompassed coils, central twist

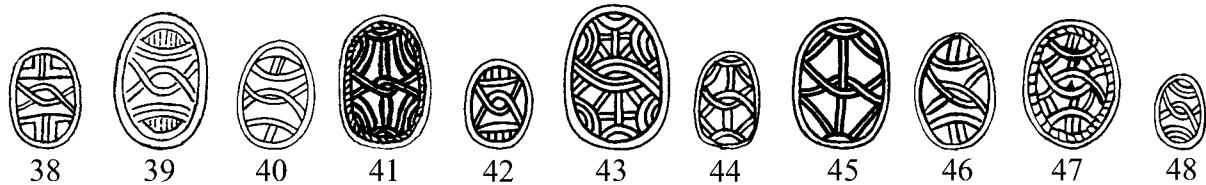
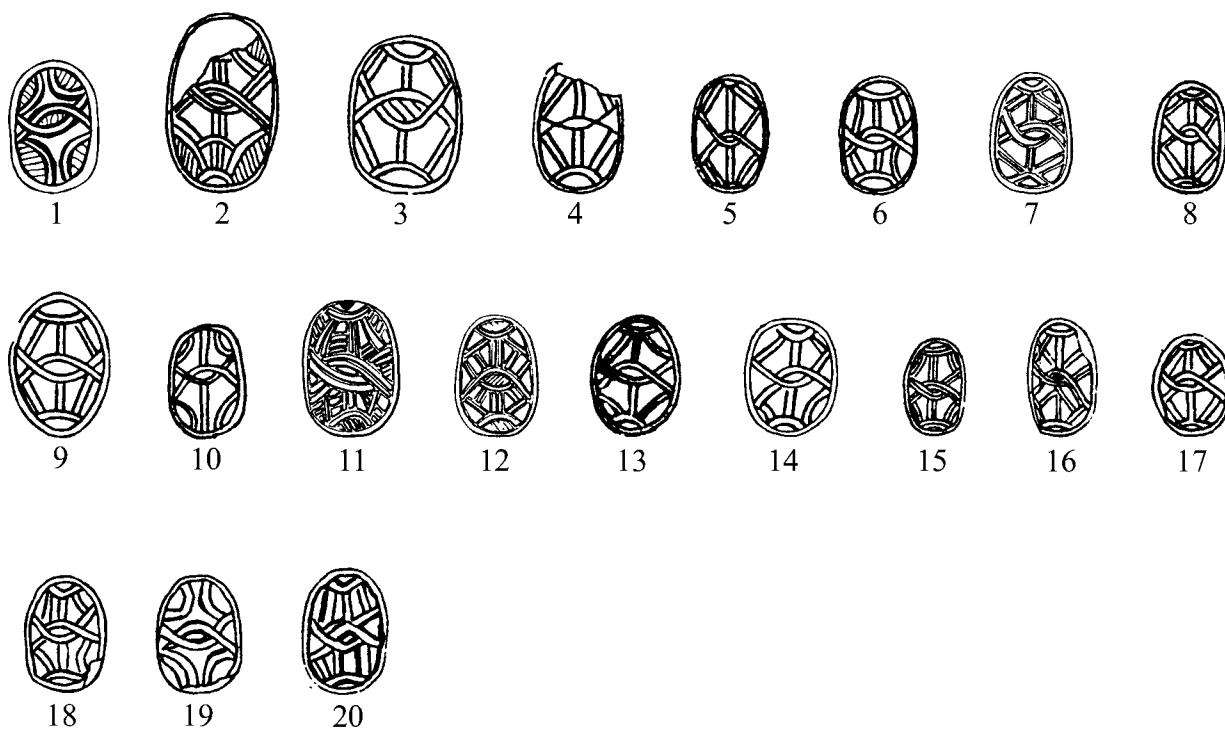
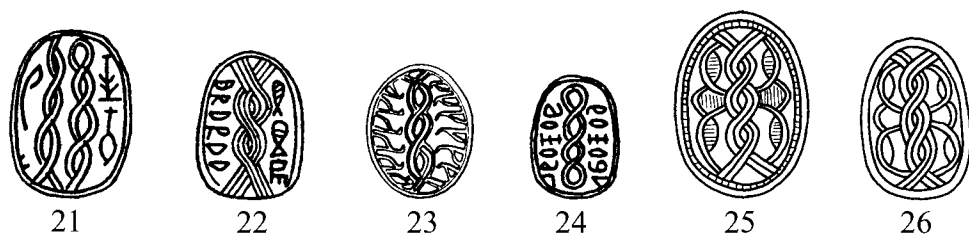


Plate 90

1. Giveon 1985: 122-23, no. 37
2. Petrie 1931: Pl. 13: 17 = Keel 1997: 111, no. 17
3. Petrie 1931: Pl. 14: 177 = Keel 1997: 163, no. 171
4. Petrie 1931: Pl. 14: 178 = Keel 1997: 163, no. 172
5. Petrie 1932: Pl. 7: 1 = Keel 1997: 173, no. 204
6. Petrie 1932: Pl. 8: 160 = Keel 1997: 225, no. 362
7. Petrie 1933: Pl. 4: 131 = Keel 1997: 273, no. 497
8. Petrie 1934: Pl. 5: 51 = Keel 1997: 311, no. 612
9. Petrie 1934: Pl. 5: 87 = Keel 1997: 323, no. 647
10. Petrie 1934: Pl. 7: 175 = Keel 1997: 355, no. 735
11. Petrie 1934: Pl. 7: 246 = Keel 1997: 379, no. 806
12. Petrie 1934: Pl. 9: 332 = Keel 1997: 409, no. 893
13. Petrie 1934: Pl. 7: 266 = Keel 1997: 387, no. 826
14. Petrie 1934: Pl. 9: 280 = Keel 1997: 391, no. 840
15. Petrie 1934: Pl. 9: 298 = Keel 1997: 397, no. 859
16. Mackay and Murray 1952: Pl. 10: 158 = Keel 1997: 507, no. 1184
17. Mackay and Murray 1952: Pl. 10: 159 = Keel 1997: 507, no. 1185
18. Mackay and Murray 1952: Pl. 10: 160 = Keel 1997: 509, no. 1186
19. Mackay and Murray 1952: Pl. 10: 161 = Keel 1997: 509, no. 1187
20. Mackay and Murray 1952: Pl. 10: 162 = Keel 1997: 509, no. 1188
21. Petrie 1931: pl. 13: 36 = Keel 1997: 115, no. 33
22. Petrie 1934: Pl. 5: 53 = Keel 1997: 311, no. 614
23. Petrie 1934: Pl. 7: 232 = Keel 1997: 375, no. 792
24. Petrie 1931: Pl. 14: 97 = Keel 1997: 135, no. 91
25. Price Williams 1977: Fig. 63: 5
26. Price Williams 1977: Fig. 96: 2
27. Kirkbride 1965: Fig. 291: 1
28. Kirkbride 1965: Fig. 300: 26
29. Petrie 1930: Pl. 7: 36
30. Starkey and Harding 1932: Pl. 43: 10
31. Price Williams 1977: Fig. 48: 5
32. Macalister 1912: Pl. 203b: 1
33. Macalister 1912: Pl. 207: 6
34. Petrie 1931: Pl. 13: 25 = Keel 1997: 113, no. 24
35. Petrie 1931: Pl. 14: 98 = Keel 1997: 135, no. 92
36. Petrie 1931: Pl. 14: 121 = Keel 1997: 145, no. 115
37. Petrie 1934: Pl. 5: 139 = Keel 1997: 341, no. 699
38. Mackay and Murray 1952: Pl. 10: 133 = Keel 1997: 499, no. 1159



Design class 6C3 - encompassed coils, central cable



Design class 7A1 - continuous scroll border, round scrolls

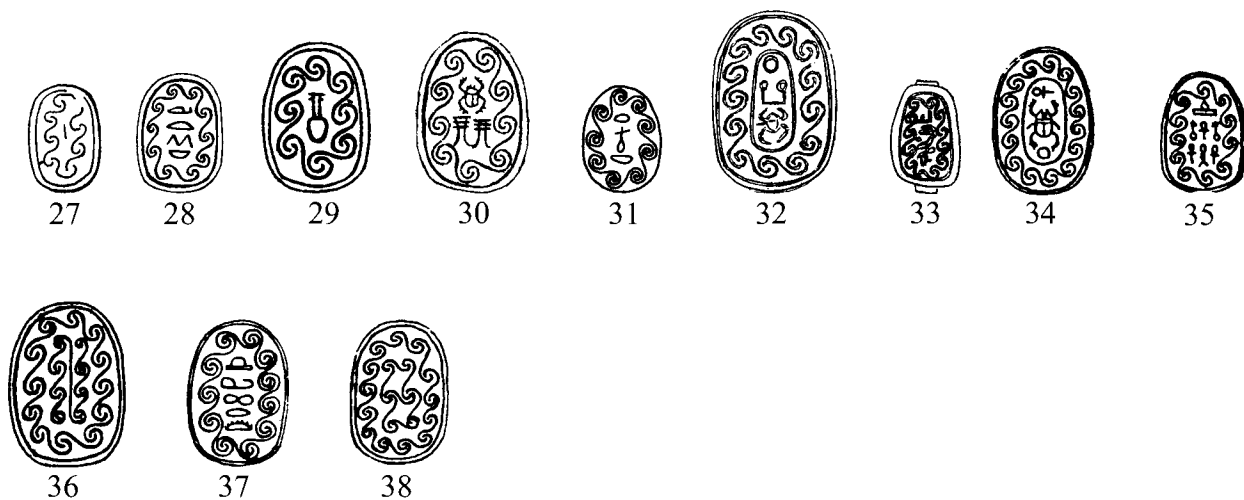


Plate 91

1. Kirkbride 1965: Fig. 290: 16
2. Kirkbride 1965: Fig. 291: 8
3. Kirkbride 1965: Fig. 291: 11
4. Kirkbride 1965: Fig. 298: 7
5. Kirkbride 1965: Fig. 299: 12
6. Kirkbride 1965: Fig. 300: 2
7. Kirkbride 1965: Fig. 300: 21
8. Kirkbride 1965: Fig. 302: 4
9. Petrie 1930: Pl. 7: 52
10. Petrie 1930: Pl. 10: 65
11. Starkey and Harding 1932: Pl. 43: 24
12. Price Williams 1977: Fig. 27: 1
13. Macalister 1912: Pl. 203a: 4
14. Macalister 1912: Pl. 206: 24
15. Macalister 1912: Pl. 209: 8
16. Tufnell 1958: Pl. 30: 4
17. Tufnell 1958: Pl. 32: 90
18. Tufnell 1958: Pl. 32: 109
19. Petrie 1931: Pl. 13: 15 = Keel 1997: 109, no. 15
20. Petrie 1931: Pl. 13: 40 = Keel 1997: 117, no. 36
21. Petrie 1933: Pl. 3: 98 = Keel 1997: 261, no. 466
22. Petrie 1933: pl. 4: 155 = Keel 1997: 279, no. 518
23. Petrie 1934: Pl. 7: 194 = Keel 1997: 361, no. 754
24. Mackay and Murray 1952: Pl. 9: 1 = Keel 1997: 455, no. 1029
25. Mackay and Murray 1952: Pl. 9: 53 = Keel 1997: 473, no. 1079
26. Kirkbride 1965: Fig. 289: 5
27. Kirkbride 1965: Fig. 290: 5
28. Kirkbride 1965: Fig. 290: 9
29. Kirkbride 1965: Fig. 295: 4
30. Kirkbride 1965: Fig. 295: 9
31. Kirkbride 1965: Fig. 298: 10
32. Kirkbride 1965: Fig. 300: 23
33. Kirkbride 1965: Fig. 300: 24
34. Kirkbride 1965: Fig. 303: 4
35. Petrie 1931: Pl. 14: 158 = Keel 1997: 157, no. 152
36. Petrie 1933: Pl. 3: 69 = Keel 1997: 251, no. 437
37. Petrie 1933: Pl. 3: 73 = Keel 1997: 253, no. 441
38. Petrie 1933: Pl. 3: 83 = Keel 1997: 255, no. 451
39. Petrie 1934: Pl. 5: 45 = Keel 1997: 309, no. 606
40. Petrie 1934: Pl. 7: 225 = Keel 1997: 371, no. 785
41. Petrie 1934: Pl. 9: 363 = Keel 1997: 417, no. 920
42. Mackay and Murray 1952: Pl. 10: 131 = Keel 1997: 497, no. 1157
43. Mackay and Murray 1952: Pl. 10: 132 = Keel 1997: 499, no. 1158
44. Price Williams 1977: Fig. 37: 6
45. Tufnell 1958: Pl. 32: 101
46. Givon 1985: 115, no. 14



Design class 7B1(II) - paired scrolls, one pair, oblong

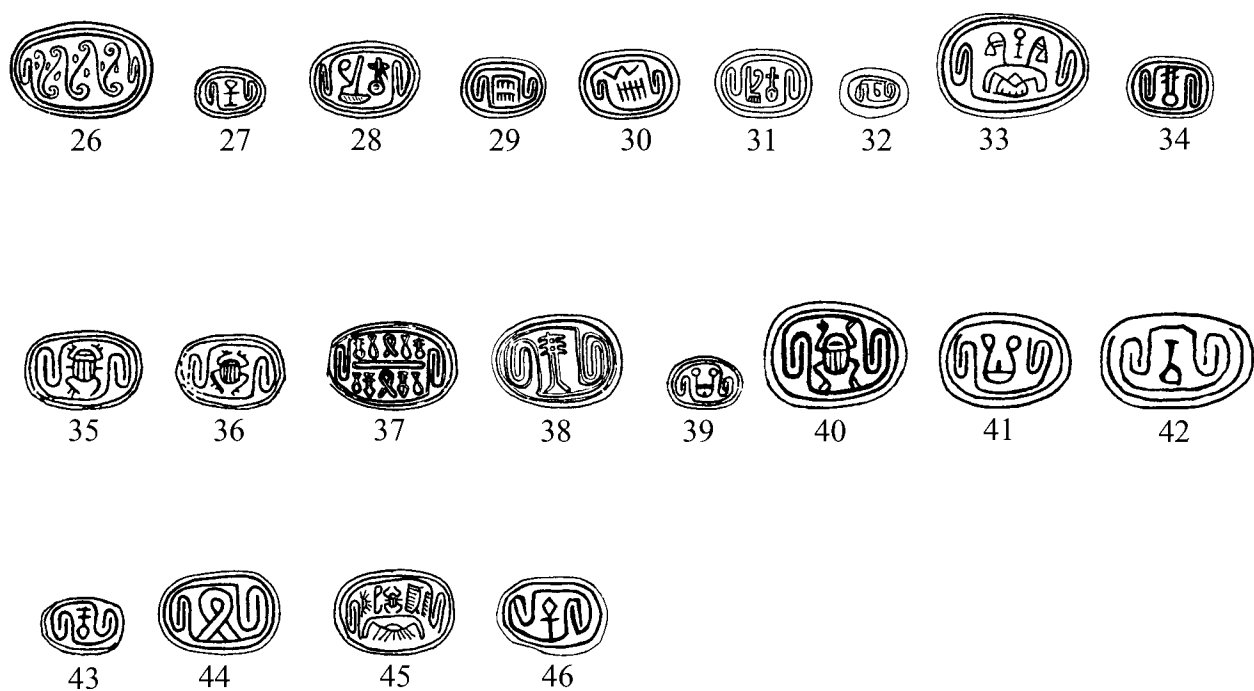
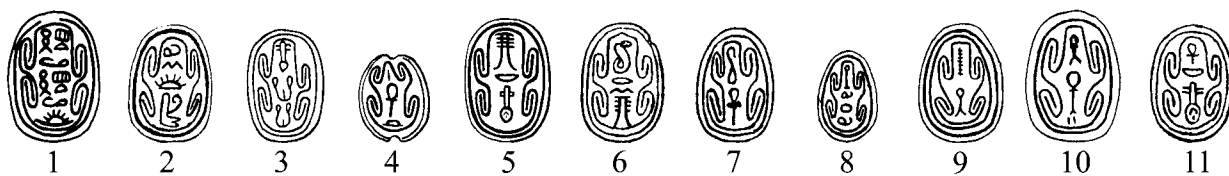


Plate 92

1. Keel 1997: 91, no. 37
2. Kirkbride 1965: Fig. 289: 15
3. Kirkbride 1965: Fig. 290: 14
4. Kirkbride 1965: Fig. 295: 12
5. Kirkbride 1965: Fig. 295: 16
6. Kirkbride 1965: Fig. 296: 3
7. Kirkbride 1965: Fig. 299: 13
8. Kirkbride 1965: Fig. 302: 1
9. Kirkbride 1965: Fig. 302: 14
10. Kirkbride 1965: Fig. 302: 16
11. Kirkbride 1965: Fig. 303: 12
12. Petrie 1931: Pl. 13: 39 = Keel 1997: 117, no. 35
13. Petrie 1933: Pl. 4: 135 = Keel 1997: 273, no. 501
14. Petrie 1934: Pl. 7: 219 = Keel 1997: 369, no. 779
15. Macalister 1912: Pl. 204b: 3
16. Macalister 1912: Pl. 206: 19
17. Tufnell 1958: Pl. 32: 106
18. Kirkbride 1965: Fig. 290: 2
19. Kirkbride 1965: Fig. 290: 13
20. Kirkbride 1965: Fig. 294: 11
21. Kirkbride 1965: Fig. 295: 10
22. Kirkbride 1965: Fig. 296: 4
23. Kirkbride 1965: Fig. 297: 11
24. Kirkbride 1965: Fig. 298: 8
25. Kirkbride 1965: Fig. 302: 3
26. Petrie 1930: Pl. 7: 25
27. Petrie 1930: Pl. 7: 26
28. Price Williams 1977: Fig. 15: 7
29. Price Williams 1977: Fig. 32: 2
30. Price Williams 1977: Fig. 87: 1
31. Tufnell 1958: Pl. 30: 6
32. Tufnell 1958: Pl. 30: 35
33. Tufnell 1958: Pl. 30: 36
34. Tufnell 1958: Pl. 32: 91
35. Tufnell 1958: Pl. 32: 133
36. Tufnell 1958: Pl. 34: 141
37. Tufnell 1958: Pl. 34: 142
38. Tufnell 1958: Pl. 34: 143
39. Petrie 1931: Pl. 14: 113 = Keel 1997: 141, no. 107
40. Petrie 1933: Pl. 4: 160 = Keel 1997: 281, no. 522
41. Petrie 1934: Pl. 5: 25 = Keel 1997: 301, no. 586
42. Petrie 1934: Pl. 5: 28 = Keel 1997: 303, no. 589
43. Petrie 1934: Pl. 5: 102 = Keel 1997: 329, no. 662
44. Petrie 1934: Pl. 5: 130 = Keel 1997: 339, no. 690
45. Petrie 1934: Pl. 7: 167 = Keel 1997: 351, no. 727
46. Petrie 1934: Pl. 7: 244 = Keel 1997: 379, no. 804
47. Petrie 1934: Pl. 11: 477 = Keel 1997: 453, no. 1028



Design class 7B3(ii) - paired scrolls, three pairs, oblong

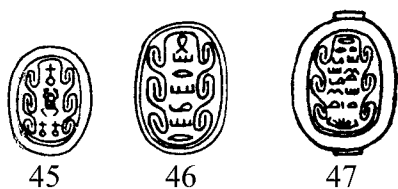
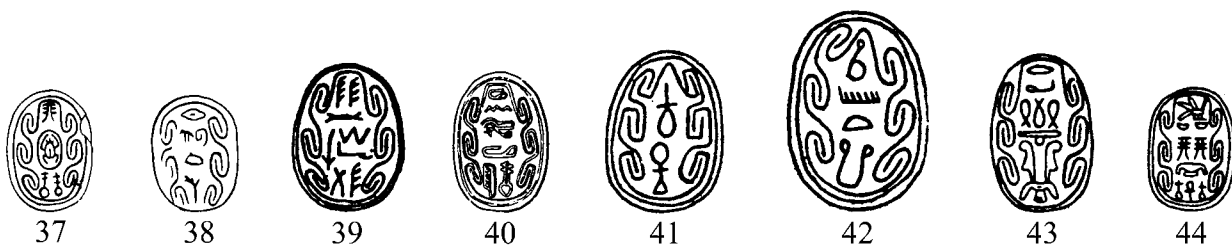
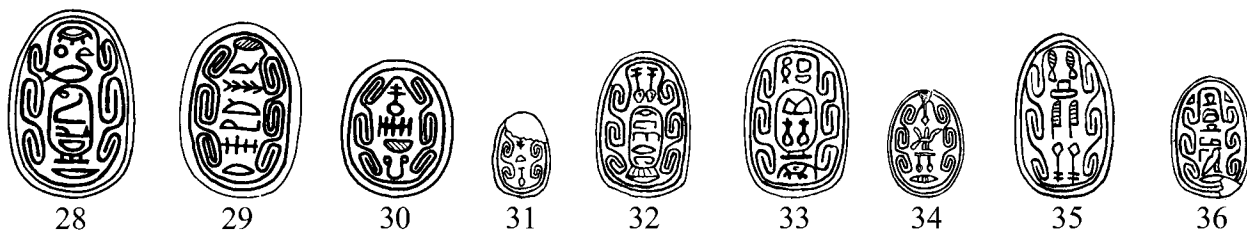
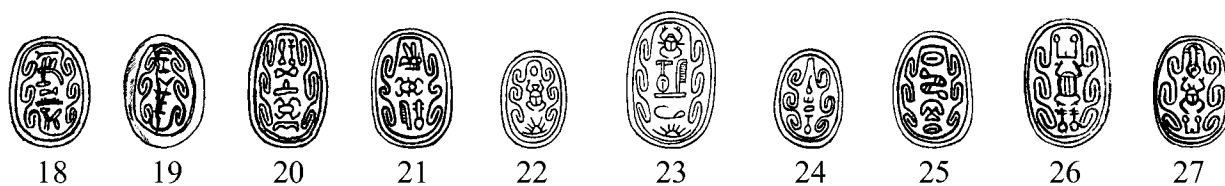


Plate 93

1. Starkey and Harding 1932: Pl. 43: 8
2. Kirkbride 1965: Fig. 294: 7
3. Kirkbride 1965: Fig. 300: 27
4. Kirkbride 1965: Fig. 300: 29
5. Kirkbride 1965: Fig. 302: 7
6. Tufnell 1958: Pl. 30: 5
7. Petrie 1934: Pl. 7: 178 = Keel 1997: 355, no. 738
8. Petrie 1934: Pl. 467 = Keel 1997: 451, no. 1018
9. Petrie 1931: Pl. 13: 46 = Keel 1997: 119, no. 42
10. Mackay and Murray 1952: Pl. 9: 51 = Keel 1997: 473, no. 1077
11. Kirkbride 1965: Fig. 300: 19
12. Petrie 1931: Pl. 14: 180 = Keel 1997: 165, no. 174
13. Petrie 1934: Pl. 7: 143 = Keel 1997: 343, no. 703
14. Kirkbride 1965: Fig. 290: 1
15. Kirkbride 1965: Fig. 290: 4
16. Kirkbride 1965: Fig. 290: 17
17. Kirkbride 1965: Fig. 290: 25
18. Kirkbride 1965: Fig. 291: 7
19. Kirkbride 1965: Fig. 294: 8
20. Kirkbride 1965: Fig. 295: 3
21. Kirkbride 1965: Fig. 295: 11
22. Kirkbride 1965: Fig. 295: 13
23. Kirkbride 1965: Fig. 300: 1
24. Kirkbride 1965: Fig. 300: 18
25. Kirkbride 1965: Fig. 300: 12
26. Kirkbride 1965: Fig. 300: 25
27. Kirkbride 1965: Fig. 300: 30
28. Kirkbride 1965: Fig. 302: 2
29. Price Williams 1977: Fig. 5: 4
30. Tufnell 1958: Pl. 30: 7
31. Macalister 1912: Pl. 204a: 3
32. Petrie 1934: Pl. 5: 92 = Keel 1997: 325, no. 652



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Design class 7B4(ii) - paired scrolls, four pairs, oblong



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Design class 7C3(ii) - paired scrolls, open, three pairs, oblong



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Design class 7C4 - paired scrolls, open, four pairs, round and oblong



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Design class 7+8 - oblong scrolls with rope border



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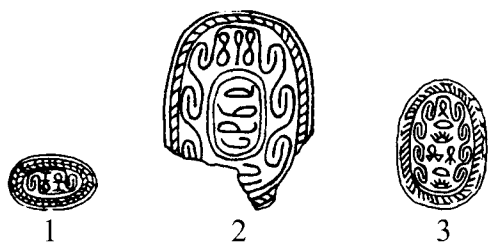
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Plate 94

1. Petrie 1934: Pl. 9: 367 = Keel 1997: 419, no. 924
2. Petrie 1934: Pl. 9: 372 = Keel 1997: 419, no. 928
3. Mackay and Murray 1952: Pl. 9: 52 = Keel 1997: 473, no. 1078
4. Kirkbride 1965: Fig. 291: 5
5. Kirkbride 1965: Fig. 291: 15
6. Kirkbride 1965: Fig. 292: 2
7. Kirkbride 1965: Fig. 294: 1
8. Kirkbride 1965: Fig. 294: 15
9. Kirkbride 1965: Fig. 296: 9
10. Kirkbride 1965: Fig. 296: 17
11. Kirkbride 1965: Fig. 297: 1
12. Kirkbride 1965: Fig. 298: 1
13. Kirkbride 1965: Fig. 299: 4
14. Kirkbride 1965: Fig. 299: 14
15. Kirkbride 1965: Fig. 299: 18
16. Kirkbride 1965: Fig. 300: 9
17. Kirkbride 1965: Fig. 300: 22
18. Kirkbride 1965: Fig. 300: 31
19. Kirkbride 1965: Fig. 301: 11
20. Kirkbride 1965: Fig. 302: 13
21. Kirkbride 1965: Fig. 303: 6
22. Kirkbride 1965: Fig. 303: 9
23. Petrie 1930: Pl. 7: 42
24. Starkey and Harding 1932: Pl. 44: 65
25. Starkey and Harding 1932: Pl. 44: 71
26. Price Williams 1977: Fig. 10: 5
27. Price Williams 1977: Fig. 48: 10
28. Price Williams 1977: Fig. 63: 5
29. Price Williams 1977: Fig. 87: 2
30. Macalister 1912: Pl. 203a: 16
31. Macalister 1912: Pl. 205a: 1
32. Macalister 1912: Pl. 206: 20
33. Macalister 1912: Pl. 206: 27
34. Macalister 1912: Pl. 206: 42
35. Macalister 1912: Pl. 209: 1
36. Giveon 1985: 111, no. 3
37. Giveon 1985: 115, no. 16
38. Giveon 1985: 119, no. 26
39. Giveon 1985: 121, no. 32
40. Tufnell 1958: Pl. 30: 20



Design class 8A - rope border, twisted strand

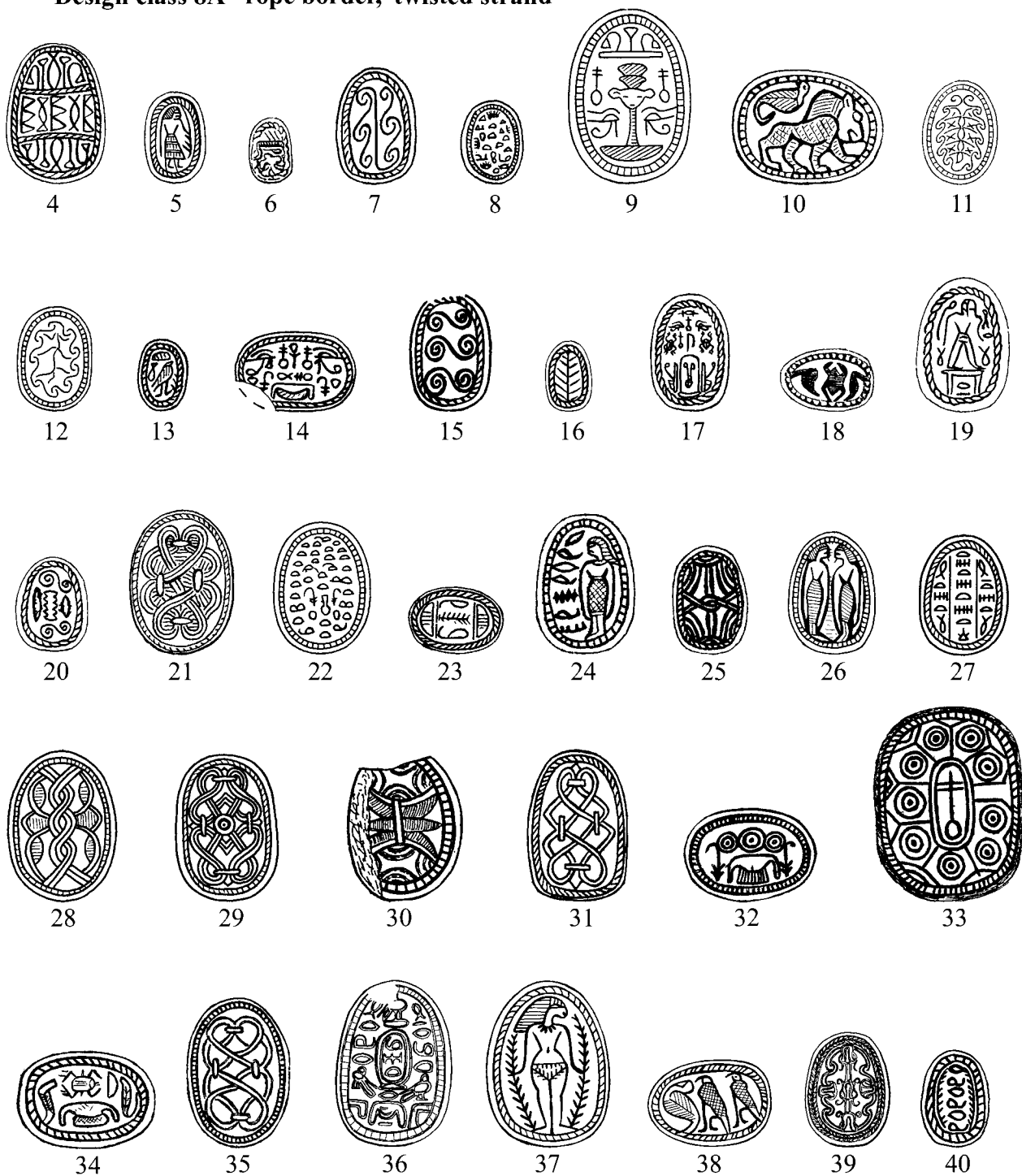
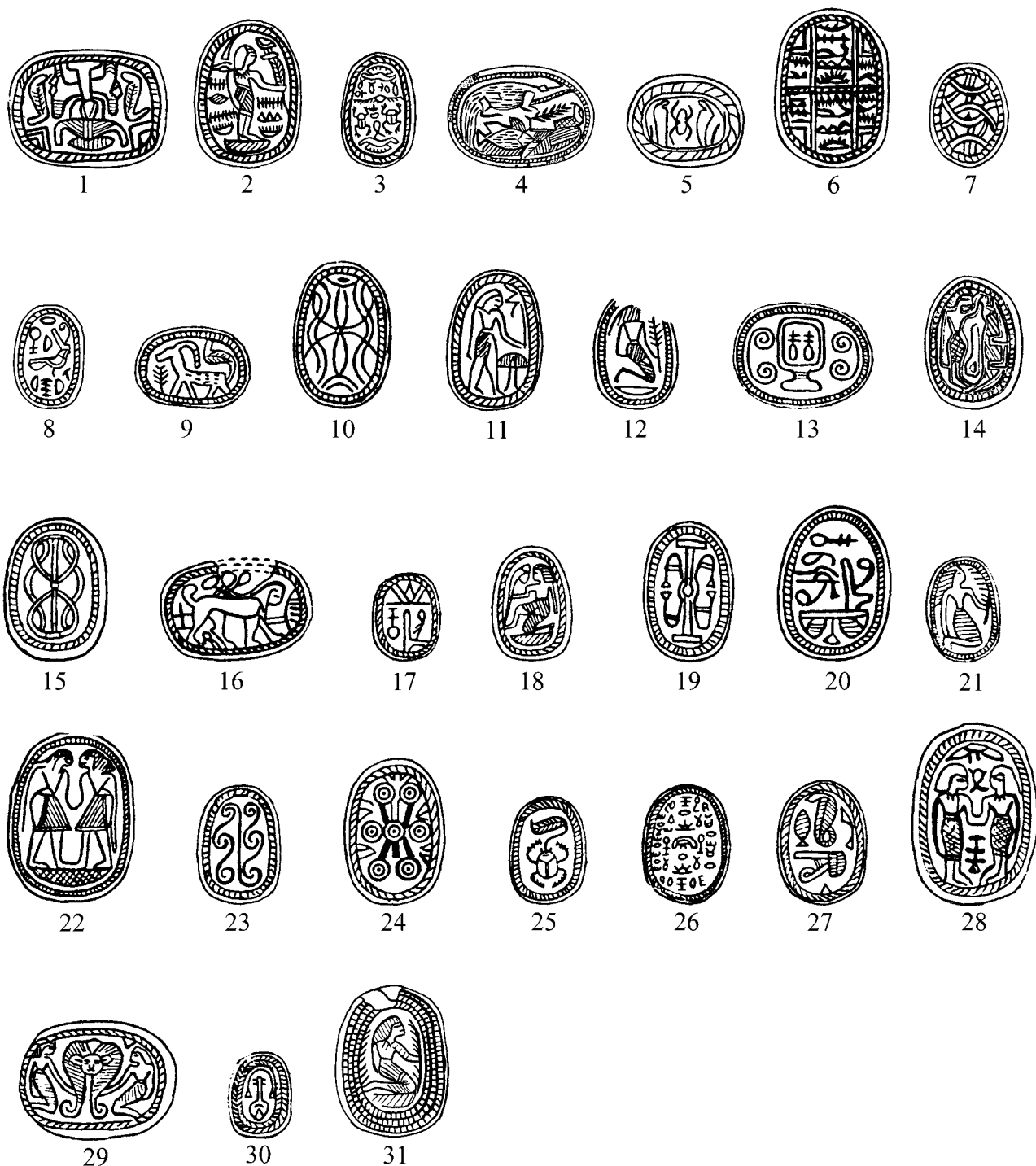


Plate 95

1. Tufnell 1958: Pl. 30: 29
2. Tufnell 1958: Pl. 30: 45
3. Tufnell 1958: Pl. 30: 49
4. Tufnell 1958: Pl. 32: 96
5. Tufnell 1958: Pl. 32: 132
6. Tufnell 1958: Pl. 34: 158
7. Tufnell 1958: Pl. 34: 194
8. Tufnell 1958: Pl. 36: 210
9. Petrie 1031: Pl. 13: 1 = Keel 1997: 107, no. 1
10. Petrie 1931: Pl. 13: 41 = Keel 1997: 117, no. 37
11. Petrie 1931: Pl. 14: 118 = Keel 1997: 143, no. 112
12. Petrie 1931: Pl. 14: 162 = Keel 1997: 157, no. 156
13. Petrie 1932: Pl. 8: 158 = Keel 1997: 225, no. 360
14. Petrie 1933: Pl. 4: 144 = Keel 1997: 277, no. 509
15. Petrie 1934: Pl. 5: 16 = Keel 1997: 299, no. 577
16. Petrie 1934: Pl. 5: 48 = Keel 1997: 309, no. 609
17. Petrie 1934: Pl. 5: 49 = Keel 1997: 311, no. 610
18. Petrie 1934: Pl. 5: 74 = Keel 1997: 319, no. 634
19. Petrie 1934: Pl. 5: 81 = Keel 1997: 321, no. 641
20. Petrie 1934: Pl. 5: 94 = Keel 1997: 327, no. 654
21. Petrie 1934: Pl. 5: 104 = Keel 1997: 329, no. 664
22. Petrie 1934: Pl. 5: 119 = Keel 1997: 335, no. 679
23. Petrie 1934: Pl. 5: 120 = Keel 1997: 335, no. 680
24. Petrie 1934: Pl. 7: 177 = Keel 1997: 355, no. 737
25. Petrie 1934: Pl. 11: 403 = Keel 1997: 431, no. 959
26. Petrie 1934: Pl. 11: 427 = Keel 1997: 439, no. 982
27. Petrie 1934: Pl. 11: 431 = Keel 1997: 439, no. 986
28. Mackay and Murray 1952: Pl. 9: 17 = Keel 1997: 461, no. 1045
29. Mackay and Murray 1952: Pl. 9: 47 = Keel 1997: 471, no. 1073
30. Petrie 1934: Pl. 9: 297 = Keel 1997: 397, no. 858
31. Tufnell 1958: Pl. 36: 238
32. Petrie 1932: Pl. 8: 144 = Keel 1997: 221, no. 347
33. Price Williams 1977: Fig. 96: 1



Design class 8C - rope border, full “twisted” cable



Plate 96

1. Kirkbride 1965: Fig. 288: 14
2. Kirkbride 1965: Fig. 288: 16
3. Kirkbride 1965: Fig. 292: 21
4. Kirkbride 1965: Fig. 293: 17
5. Kirkbride 1965: Fig. 300: 4
6. Kirkbride 1965: Fig. 301: 12
7. Kirkbride 1965: Fig. 302: 20
8. Kirkbride 1965: Fig. 303: 1
9. Starkey and Harding 1932: Pl. 43: 14
10. Starkey and Harding 1932: Pl. 44: 48
11. Price Williams 1977: Fig. 42: 1
12. Price Williams 1977: Fig. 44: 5
13. Price Williams 1977: Fig. 44: 9
14. Price Williams 1977: Fig. 48: 6
15. Price Williams 1977: Fig. 107: 2
16. Macalister 1912: Pl. 205a: 20
17. Macalister 1912: Pl. 206: 45
18. Macalister 1912: Pl. 206: 46
19. Giveon 1985: 117, no. 22
20. Giveon 1985: 117, no. 21
21. Giveon 1985: 119, no. 23
22. Tufnell 1958: Pl. 30: 44
23. Tufnell 1958: Pl. 36: 223
24. Tufnell 1958: Pl. 36: 224
25. Tufnell 1958: Pl. 36: 225
26. Petrie 1931: Pl. 13: 1 = Keel 1997: 107, no. 1
27. Petrie 1931: Pl. 13: 18 = Keel 1997: 111, no. 18
28. Petrie 1931: Pl. 13: 61 = Keel 1997: 123, no. 55
29. Petrie 1931: Pl. 14: 166 = Keel 1997: 159, no. 160
30. Petrie 1932: Pl. 8: 155 = Keel 1997: 223, no. 357
31. Petrie 1933: Pl. 3: 27 = Keel 1997: 239, no. 397
32. Petrie 1933: pl. 3: 34 = Keel 1997: 241, no. 404
33. Petrie 1933: Pl. 3: 35 = Keel 1997: 241, no. 405
34. Petrie 1934: Pl. 5: 29 = Keel 1997: 303, no. 590
35. Petrie 1934: Pl. 5: 52 = Keel 1997: 311, no. 613
36. Petrie 1934: Pl. 5: 108 = Keel 1997: 331, no. 668
37. Petrie 1934: Pl. 5: 112 = Keel 1997: 331, no. 672
38. Petrie 1934: Pl. 7: 211 = Keel 1997: 367, no. 771
39. Petrie 1934: Pl. 9: 283 = Keel 1997: 393, no. 843
40. Petrie 1934: Pl. 9: 344 = Keel 1997: 411, no. 904
41. Petrie 1934: Pl. 11: 405 = Keel 1997: 431, no. 961
42. Petrie 1934: Pl. 11: 451 = Keel 1997: 445, no. 1001



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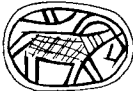
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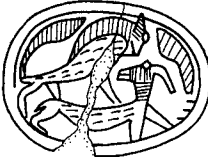
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Plate 97

1. Mackay and Murray 1952: Pl. 10: 116 = Keel 1997: 493, no. 1142
2. Mackay and Murray 1952: Pl. 10: 117 = Keel 1997: 493, no. 1143
3. Mackay and Murray 1952: Pl. 10: 118 = Keel 1997: 493, no. 1144
4. Mackay and Murray 1952: Pl. 10: 119 = Keel 1997: 495, no. 1145
5. Mackay and Murray 1952: Pl. 10: 120 = Keel 1997: 495, no. 1146
6. Kirkbride 1965: Fig. 291: 10
7. Kirkbride 1965: Fig. 295: 15
8. Kirkbride 1965: Fig. 300: 31
9. Macalister 1912: Pl. 206: 42
10. Tufnell 1958: Pl. 32: 132
11. Petrie 1931: Pl. 14: 123 = Keel 1997: 145, no. 117
12. Petrie 1933: Pl. 3: 31 = Keel 1997: 239, no. 401
13. Petrie 1933: Pl. 3: 71 = Keel 1997: 251, no. 439
14. Petrie 1933: Pl. 4: 168 = Keel 1997: 283, no. 529
15. Petrie 1934: Pl. 5: 30 = Keel 1997: 303, no. 591
16. Petrie 1934: Pl. 5: 63 = Keel 1997: 315, no. 624
17. Petrie 1934: Pl. 5: 137 = Keel 1997: 341, no. 697
18. Petrie 1934: Pl. 9: 391 = Keel 1997: 425, no. 947
19. Tufnell 1973: Fig. 3: 122
20. Kirkbride 1965: Fig. 290: 22
21. Kirkbride 1965: Fig. 299: 25
22. Price Williams 1977: Fig. 32: 1
23. Tufnell 1973: Fig. 3: 120
24. Petrie 1931: Pl. 13: 52 = Keel 1997: 121, no. 48
25. Petrie 1933: Pl. 3: 25 = Keel 1997: 237, no. 395
26. Petrie 1933: Pl. 4: 147 = Keel 1997: 277, no. 512
27. Petrie 1934: Pl. 5: 64 = Keel 1997: 315, no. 625
28. Petrie 1934: Pl. 7: 161 = Keel 1997: 349, no. 721
29. Petrie 1934: Pl. 7: 169 = Keel 1997: 353, no. 729
30. Petrie 1934: Pl. 11: 397 = Keel 1997: 427, no. 953
31. Mackay and Murray 1952: Pl. 9: 24 = Keel 1997: 463, no. 1052
32. Mackay and Murray 1952: Pl. 9: 25 = Keel 1997: 463, no. 1053



Design class 9C1 - confronted cobras with signs



Design class 9C2 - confronted cobras with figures



Plate 98

1. Kirkbride 1965: Fig. 288: 9
2. Kirkbride 1965: Fig. 288: 15
3. Kirkbride 1965: Fig. 301: 4
4. Kirkbride 1965: Fig. 301: 5
5. Kirkbride 1965: Fig. 301: 6
6. Price Williams 1977: Fig. 37: 8
7. Giveon 1985: 119, no. 27
8. Giveon 1985: 121, no. 29
9. Tufnell 1973: Fig. 2: 90
10. Tufnell 1973: Fig. 2: 102
11. Petrie 1931: Pl. 13: 29 = Keel 1997: 115, no. 28
12. Petrie 1931: Pl. 13: 59 = Keel 1997: 123, no. 53
13. Petrie 1931: Pl. 13: 60 = Keel 1997: 123, no. 54
14. Petrie 1931: Pl. 14: 167 = Keel 1997: 159, no. 161
15. Petrie 1931: Pl. 14: 168 = Keel 1997: 159, no. 162
16. Petrie 1934: Pl. 5: 59 = Keel 1997: 313, no. 620
17. Petrie 1934: Pl. 7: 199 = Keel 1997: 363, no. 759
18. Petrie 1934: Pl. 7: 204 = Keel 1997: 365, no. 764
19. Petrie 1934: Pl. 9: 319 = Keel 1997: 405, no. 880
20. Mackay and Murray 1952: Pl. 10: 123 = Keel 1997: 495, no. 1149
21. Mackay and Murray 1952: Pl. 10: 124 = Keel 1997: 495, no. 1150
22. Mackay and Murray 1952: Pl. 10: 125 = Keel 1997: 495, no. 1151
23. Mackay and Murray 1952: Pl. 10: 126 = Keel 1997: 497, no. 1152
24. Kirkbride 1965: Fig. 298: 14
25. Kirkbride 1965: Fig. 302: 17
26. Petrie 1930: Pl. 7: 22
27. Petrie 1930: Pl. 7: 34
28. Price Williams 1977: Fig. 54: 3
29. Tufnell 1958: Pl. 32: 73
30. Tufnell 1973: Fig. 3: 130
31. Petrie 1931: Pl. 13: 73 = Keel 1997: 127, no. 67
32. Petrie 1931: pl. 14: 108 = Keel 1997: 139, no. 102
33. Petrie 1932: pl. 8; 119 = Keel 1997: 211, no. 322
34. Petrie 1933: Pl. 3: 19 = Keel 1997: 235, no. 389
35. Tufnell 1973: Fig. 2: 101
36. Tufnell 1958: Pl. 36: 216
37. Petrie 1931: Pl. 14: 165 = Keel 1997: 159, no. 159
38. Petrie 1933: Pl. 3: 1 = Keel 1997: 229, no. 371
39. Petrie 1933: Pl. 3: 44 = Keel 1997: 243, no. 413
40. Petrie 1934: Pl. 7: 223 = Keel 1997: 371, no. 783



Design class 9C4 - confronted cobras with long tails

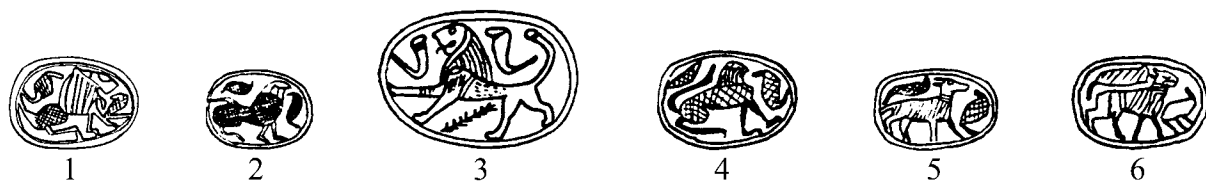


Design class 9C5 - confronted cobras with animals or heraldic beasts

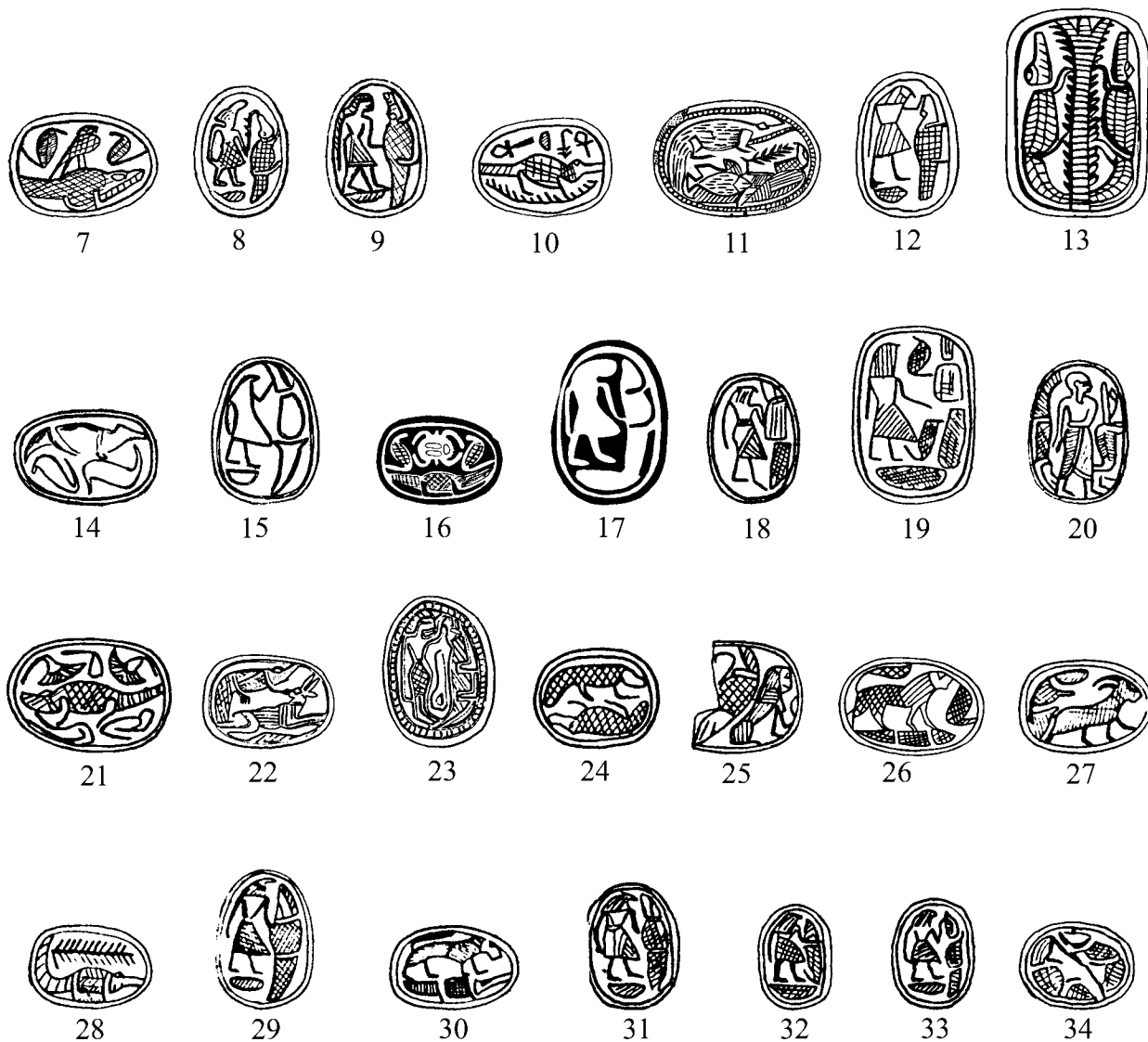


Plate 99

1. Petrie 1934: Pl. 7: 247 = Keel 1997: 379, no. 807
2. Petrie 1934: Pl. 11: 404 = Keel 1997: 431, no. 960
3. Petrie 1934: Pl. 11: 466 = Keel 1997: 451, no. 1017
4. Mackay and Murray 1952: Pl. 10: 114 = Keel 1997: 493, no. 1140
5. Mackay and Murray 1952: Pl. 10: 119 = Keel 1997: 495, no. 1145
6. Mackay and Murray 1952: Pl. 10: 120 = Keel 1997: 495, no. 1146
7. Kirkbride 1965: Fig. 288: 15
8. Kirkbride 1965: Fig. 303: 15
9. Starkey and Harding 1932: Pl. 44: 70
10. Tufnell 1958: Pl. 30: 12
11. Tufnell 1958: Pl. 32: 96
12. Tufnell 1958: Pl. 32: 129
13. Tufnell 1958: Pl. 34: 166
14. Macalister 1912: Pl. 205a: 2
15. Macalister 1912: Pl. 208: 58
16. Tufnell 1973: Fig. 2: 92
17. Tufnell 1973: Fig. 3: 132
18. Petrie 1931: Pl. 14: 124 = Keel 1997: 145, no. 118
19. Petrie 1931: Pl. 14: 165 = Keel 1997: 159, no. 159
20. Petrie 1932: Pl. 7: 74 = Keel 1997: 197, no. 277
21. Petrie 1933: Pl. 3: 4 = Keel 1997: 229, no. 374
22. Petrie 1933: Pl. 3: 34 = Keel 1997: 241, no. 404
23. Petrie 1933: Pl. 4: 144 = Keel 1997: 277, no. 509
24. Petrie 1934: Pl. 5: 33 = Keel 1997: 305, no. 594
25. Petrie 1934: Pl. 5: 96 = Keel 1997: 327, no. 656
26. Keel 1997: 383, no. 819
27. Petrie 1934: Pl. 9: 283 = Keel 1997: 393, no. 843
28. Petrie 1934: Pl. 9: 307 = Keel 1997: 401, no. 868
29. Petrie 1934: Pl. 11: 396 = Keel 1997: 427, no. 952
30. Petrie 1934: Pl. 11: 453 = Keel 1997: 445, no. 1003
31. Mackay and Murray 1952: Pl. 9: 18 = Keel 1997: 461, no. 1046
32. Mackay and Murray 1952: Pl. 9: 19 = Keel 1997: 461, no. 1047
33. Mackay and Murray 1952: Pl. 9: 20 = Keel 1997: 461, no. 1048
34. Mackay and Murray 1952: Pl. 10: 128 = Keel 1997: 497, no. 1154
35. Kirkbride 1965: Fig. 290: 21
36. Kirkbride 1965: Fig. 295: 23
37. Kirkbride 1965: Fig. 296: 16
38. Kirkbride 1965: Fig. 296: 17
39. Kirkbride 1965: Fig. 302: 9
40. Kirkbride 1965: Fig. 303: 16



Design class 9D - crocodiles



Design class 9E - lions

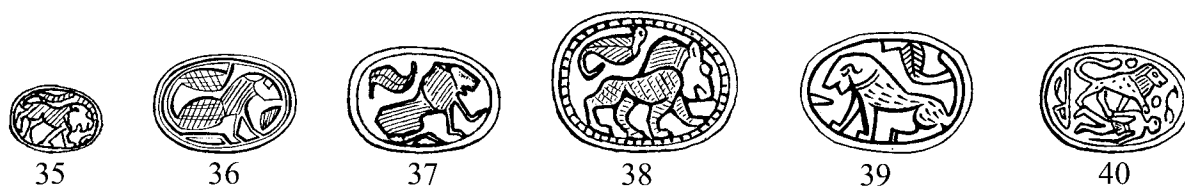


Plate 100

1. Petrie 1930: Pl. 7: 32
2. Petrie 1930: Pl. 7: 53
3. Starkey and Harding 1932: Pl. 43: 12
4. Starkey and Harding 1932: Pl. 43: 14
5. Starkey and Harding 1932: Pl. 43: 23
6. Starkey and Harding 1932: Pl. 43: 37
7. Price Williams 1977: Fig. 23: 2
8. Price Williams 1977: Fig. 27: 2
9. Price Williams 1977: Fig. 42: 1
10. Tufnell 1958: Pl. 30: 42
11. Tufnell 1958: Pl. 30: 43
12. Tufnell 1958: Pl. 32: 71
13. Tufnell 1958: Pl. 36: 215
14. Tufnell 1958: Pl. 36: 217
15. Giveon 1985: 117, no. 20
16. Giveon 1985: 119, no. 23
17. Giveon 1985: 119, no. 24
18. Petrie 1931: Pl. 14: 102 = Keel 1997: 137, no. 96
19. Petrie 1931: Pl. 14: 115 = Keel 1997: 141, no. 109
20. Petrie 1931: Pl. 14: 164 = Keel 1997: 159, no. 158
21. Petrie 1931: Pl. 14: 169 = Keel 1997: 161, no. 163
22. Petrie 1932: Pl. 8: 154 = Keel 1997: 223, no. 356
23. Petrie 1933: Pl. 3: 1 = Keel 1997: 229, no. 371
24. Petrie 1933: Pl. 3: 13 = Keel 1997: 233, no. 383
25. Petrie 1933: Pl. 3: 18 = Keel 1997: 235, no. 388
26. Petrie 1933: Pl. 3: 35 = Keel 1997: 241, no. 405
27. Petrie 1933: Pl. 3: 44 = Keel 1997: 243, no. 413
28. Petrie 1933: Pl. 3: 89 = Keel 1997: 259, no. 457
29. Petrie 1933: Pl. 3: 93 = Keel 1997: 259, no. 461
30. Petrie 1934: Pl. 5: 57 = Keel 1997: 313, no. 618
31. Petrie 1934: Pl. 5: 83 = Keel 1997: 321, no. 643
32. Petrie 1934: Pl. 5: 86 = Keel 1997: 323, no. 646
33. Petrie 1934: Pl. 5: 89 = Keel 1997: 325, no. 649
34. Petrie 1934: Pl. 5: 108 = Keel 1997: 331, no. 668
35. Petrie 1934: Pl. 7: 247 = Keel 1997: 379, no. 807
36. Petrie 1934: Pl. 7: 256 = Keel 1997: 383, no. 816



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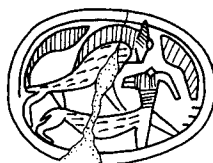
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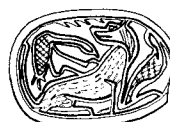
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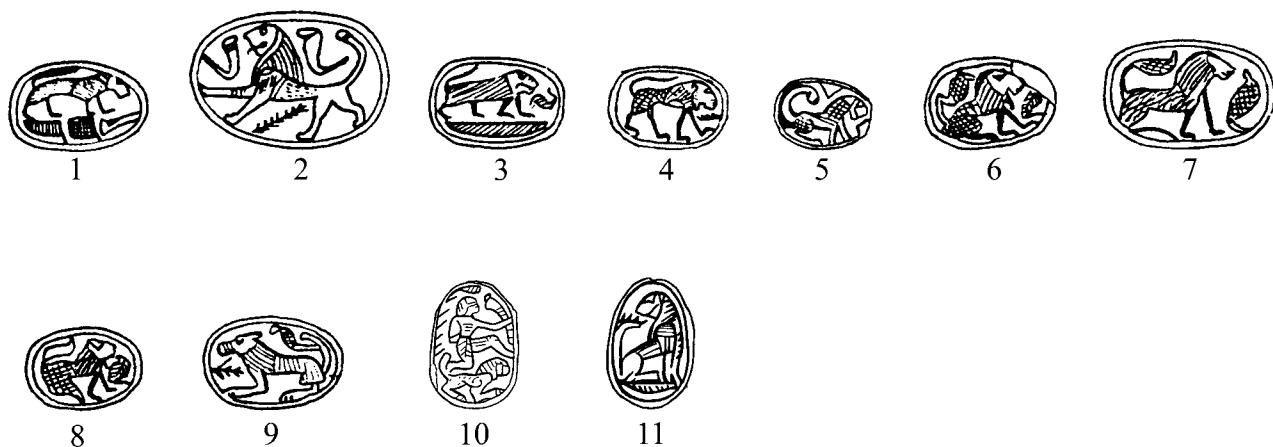
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Plate 101

1. Petrie 1934: Pl. 11: 453 = Keel 1997: 445, no. 1003
2. Petrie 1934: pl. 11: 466 = Keel 1997: 451, no. 1017
3. Mackay and Murray 1952: Pl. 10: 107 = Keel 1997: 491, no. 1133
4. Mackay and Murray 1952: Pl. 10: 108 = Keel 1997: 491, no. 1134
5. Mackay and Murray 1952: Pl. 10: 109 = Keel 1997: 491, no. 1135
6. Mackay and Murray 1952: Pl. 10: 110 = Keel 1997: 491, no. 1136
7. Mackay and Murray 1952: Pl. 10: 111 = Keel 1997: 491, no. 1137
8. Mackay and Murray 1952: Pl. 10: 112 = Keel 1997: 493, no. 1138
9. Mackay and Murray 1952: Pl. 10: 113 = Keel 1997: 493, no. 1139
10. Keel 1997: 523, no. 1239
11. Keel 1997: 525, no. 1244
12. Kirkbride 1965: Fig. 291: 13
13. Kirkbride 1965: Fig. 296: 13
14. Kirkbride 1965: Fig. 299: 5
15. Kirkbride 1965: Fig. 301: 13
16. Macalister 1912: Pl. 204a: 8
17. Macalister 1912: Pl. 205a: 3
18. Giveon 1985: 117, no. 18
19. Giveon 1985: 117, no. 19
20. Tufnell 1973: Fig. 2: 93
21. Tufnell 1973: Fig. 2: 98
22. Tufnell 1973: Fig. 2: 101
23. Tufnell 1958: Pl. 30: 29
24. Tufnell 1958: Pl. 36: 216
25. Tufnell 1958: Pl. 36: 218
26. Petrie 1931: Pl. 14: 84 = Keel 1997: 131, no. 78
27. Petrie 1931: Pl. 14: 165 = Keel 1997: 159, no. 159
28. Petrie 1933: Pl. 4: 145 = Keel 1997: 277, no. 510
29. Petrie 1933: Pl. 4: 166 = Keel 1997: 283, no. 527
30. Petrie 1934: Pl. 5: 6 = Keel 1997: 295, no. 567
31. Petrie 1934: Pl. 5: 48 = Keel 1997: 309, no. 609
32. Petrie 1934: Pl. 5: 97 = Keel 1997: 327, no. 657
33. Petrie 1934: Pl. 7: 148 = Keel 1997: 345, no. 708
34. Petrie 1934: Pl. 7: 181 = Keel 1997: 357, no. 741
35. Petrie 1934: Pl. 7: 195 = Keel 1997: 361, no. 755
36. Petrie 1934: Pl. 7: 223 = Keel 1997: 371, no. 783
37. Petrie 1934: Pl. 9: 273 = Keel 1997: 389, no. 833
38. Petrie 1934: Pl. 11: 401 = Keel 1997: 429, no. 957



Design class 9F - heraldic beasts

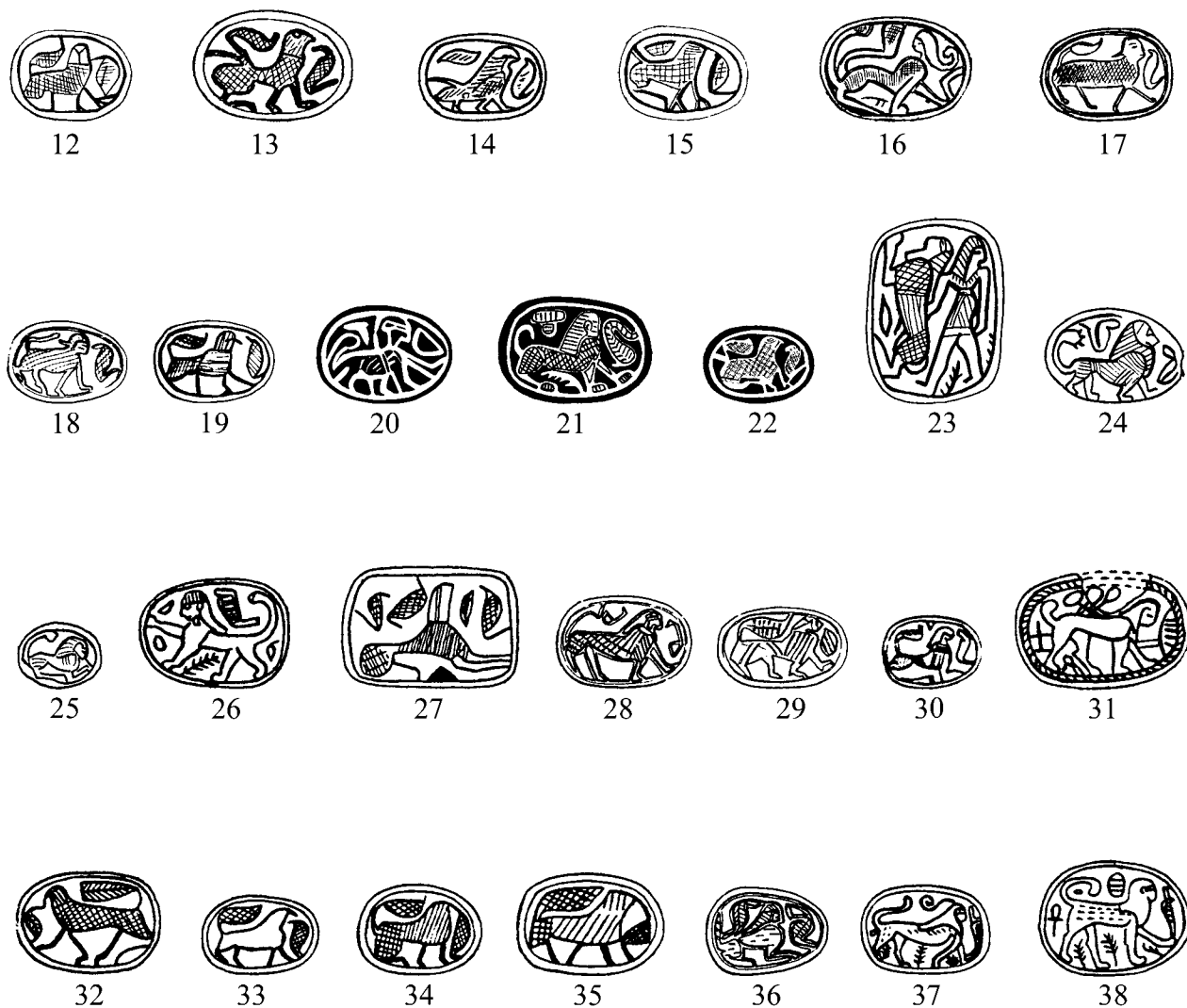


Plate 102

1. Petrie 1934: Pl. 11: 402 = Keel 1997: 429, no. 958
2. Petrie 1934: Pl. 11: 404 = Keel 1997: 431, no. 960
3. Mackay and Murray 1952: Pl. 9: 44 = Keel 1997: 471, no. 1070
4. Mackay and Murray 1952: Pl. 10: 114 = Keel 1997: 493, no. 1140
5. Kirkbride 1965: Fig. 291: 14
6. Kirkbride 1965: Fig. 291: 15
7. Kirkbride 1965: Fig. 294: 18
8. Kirkbride 1965: Fig. 296: 15
9. Kirkbride 1965: Fig. 298: 15
10. Kirkbride 1965: Fig. 298: 16
11. Kirkbride 1965: Fig. 298: 18
12. Kirkbride 1965: Fig. 301: 10
13. Petrie 1930: Pl. 12: 120
14. Starkey and Harding 1932: Pl. 43: 9
15. Starkey and Harding 1932: Pl. 43: 13
16. Starkey and Harding 1932: Pl. 44: 47
17. Starkey and Harding 1932: Pl. 44: 50
18. Starkey and Harding 1932: Pl. 44: 58
19. Starkey and Harding 1932: Pl. 44: 64
20. Starkey and Harding 1932: Pl. 44: 65
21. Starkey and Harding 1932: Pl. 44: 69
22. Price Williams 1977: Fig. 19: 3
23. Price Williams 1977: Fig. 37: 2
24. Macalister 1912: Pl. 204b: 1
25. Macalister 1912: Pl. 206: 43
26. Macalister 1912: Pl. 206: 44
27. Macalister 1912: Pl. 206: 58
28. Givon 1985: 117, no. 17
29. Tufnell 1958: Pl. 30: 30
30. Tufnell 1958: Pl. 30: 45
31. Tufnell 1958: Pl. 32: 97
32. Tufnell 1958: Pl. 32: 114
33. Tufnell 1958: Pl. 36: 231
34. Tufnell 1958: Pl. 36: 232
35. Tufnell 1958: Pl. 36: 233
36. Tufnell 1958: Pl. 36: 236
37. Petrie 1931: Pl. 13: 16 = Keel 1997: 111, no. 16
38. Petrie 1931: Pl. 13: 28 = Keel 1997: 113, no. 27
39. Petrie 1931: Pl. 13: 53 = Keel 1997: 121, no. 49
40. Petrie 1931: Pl. 14: 92 = Keel 1997: 133, no. 86
41. Petrie 1931: Pl. 14: 118 = Keel 1997: 143, no. 112
42. Petrie 1931: Pl. 14: 163 = Keel 1997: 157, no. 157
43. Petrie 1932: Pl. 7: 74 = Keel 1997: 197, no. 277
44. Petrie 1932: Pl. 8: 124 = Keel 1997: 213, no. 327
45. Petrie 1932: Pl. 8: 125 = Keel 1997: 213, no. 328
46. Petrie 1932: Pl. 8: 157 = Keel 1997: 225, no. 359
47. Petrie 1933: Pl. 3: 96 = Keel 1997: 261, no. 464
48. Petrie 1933: Pl. 4: 149 = Keel 1997: 279, no. 514
49. Petrie 1934: Pl. 5: 39 = Keel 1997: 307, no. 600
50. Petrie 1934: Pl. 5: 54 = Keel 1997: 311, no. 615



Design class 10A - standing figures

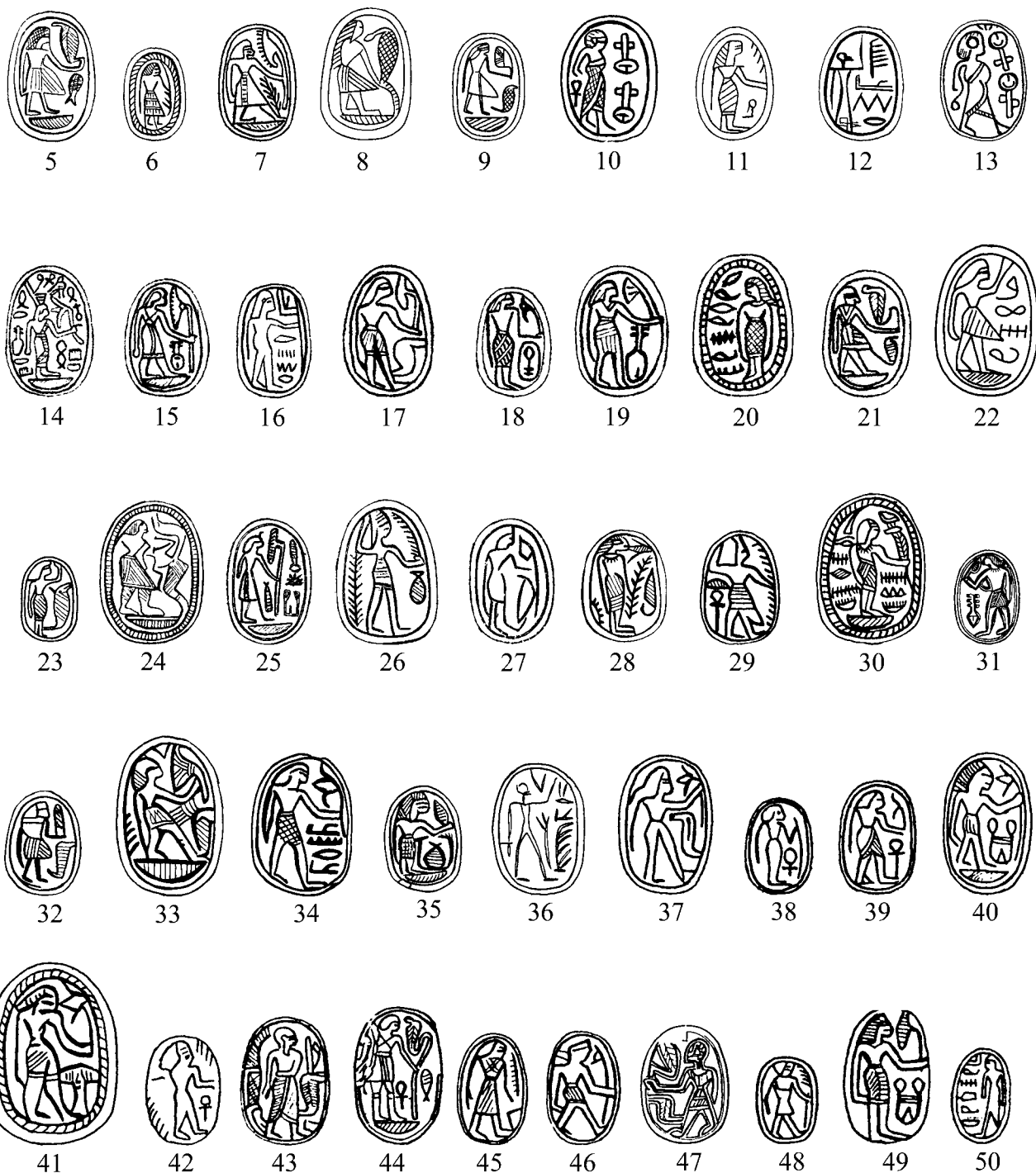
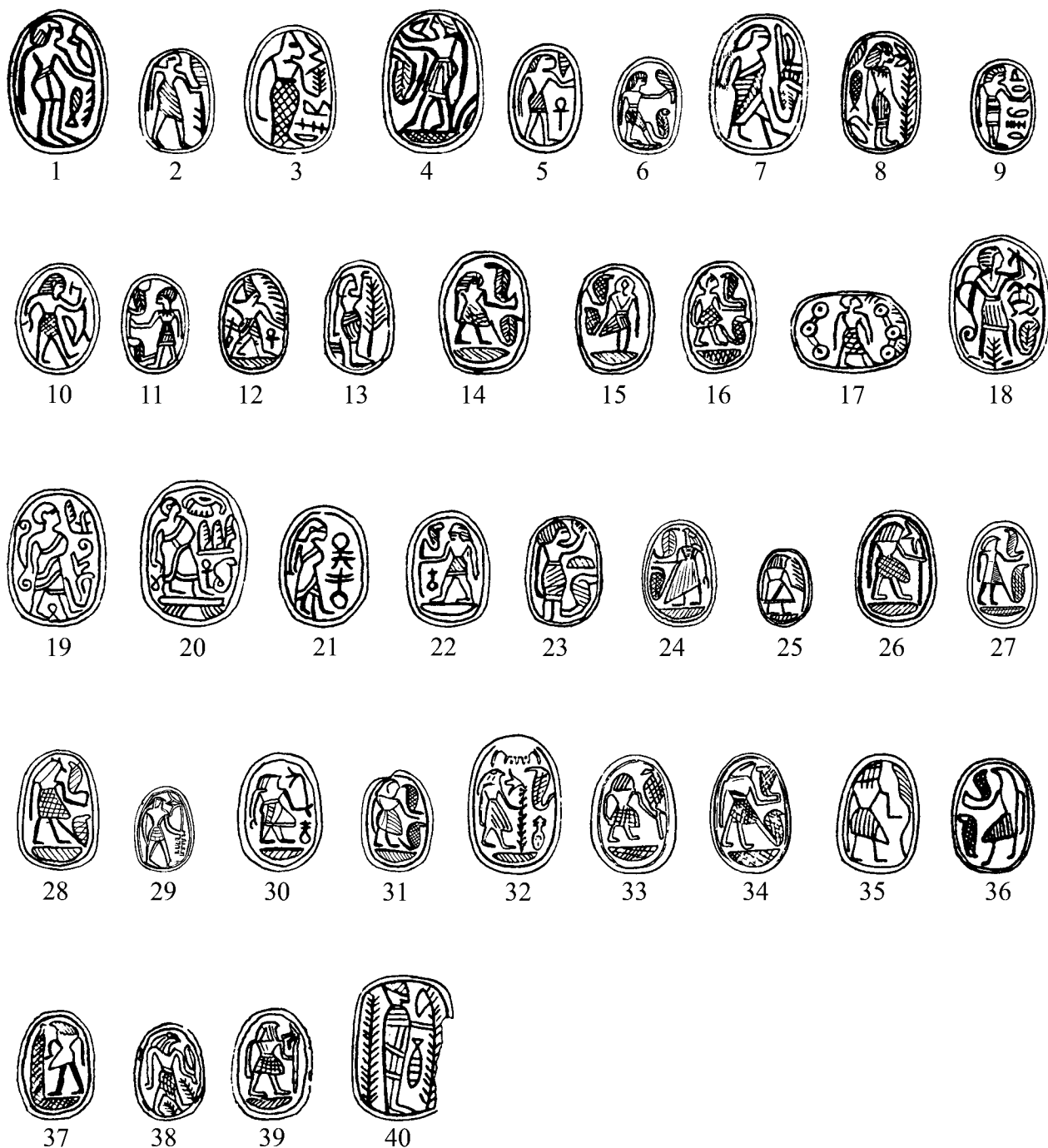


Plate 103

1. Petrie 1934: Pl. 5: 55 = Keel 1997: 313, no. 616
2. Petrie 1934: Pl. 5: 131 = Keel 1997: 339, no. 691
3. Petrie 1934: Pl. 5: 134 = Keel 1997: 339, no. 694
4. Petrie 1934: Pl. 7: 174 = Keel 1997: 353, no. 734
5. Petrie 1934: Pl. 7: 185 = Keel 1997: 359, no. 745
6. Petrie 1934: Pl. 7: 212 = Keel 1997: 367, no. 772
7. Petrie 1934: Pl. 11: 395 = Keel 1997: 427, no. 951
8. Petrie 1934: Pl. 11: 399 = Keel 1997: 429, no. 955
9. Petrie 1934: Pl. 11: 439 = Keel 1997: 443, no. 992
10. Petrie 1934: Pl. 11: 440 = Keel 1997: 443, no. 993
11. Petrie 1934: Pl. 11: 441 = Keel 1997: 443, no. 994
12. Mackay and Murray 1952: Pl. 9: 13 = Keel 1997: 459, no. 1041
13. Mackay and Murray 1952: Pl. 9: 16 = Keel 1997: 461, no. 1044
14. Mackay and Murray 1952: Pl. 9: 23 = Keel 1997: 463, no. 1051
15. Mackay and Murray 1952: Pl. 9: 26 = Keel 1997: 463, no. 1054
16. Mackay and Murray 1952: Pl. 9: 31 = Keel 1997: 465, no. 1059
17. Mackay and Murray 1952: Pl. 9: 32 = Keel 1997: 467, no. 1060
18. Mackay and Murray 1952: Pl. 9: 34 = Keel 1997: 467, no. 1061
19. Mackay and Murray 1952: Pl. 9: 35 = Keel 1997: 467, no. 1062
20. Mackay and Murray 1952: Pl. 9: 36 = Keel 1997: 467, no. 1063
21. Mackay and Murray 1952: Pl. 9: 37 = Keel 1997: 467, no. 1064
22. Mackay and Murray 1952: Pl. 9: 41 = Keel 1997: 469, no. 1067
23. Mackay and Murray 1952: Pl. 9: 42 = Keel 1997: 469, no. 1068
24. Kirkbride 1965: Fig. 294: 16
25. Petrie 1930: Pl. 10: 62
26. Starkey and Harding 1932: Pl. 44: 67
27. Price Williams 1977: Fig. 5: 2
28. Tufnell 1958: Pl. 30: 46
29. Tufnell 1958: Pl. 32: 98
30. Tufnell 1958: Pl. 32: 130
31. Tufnell 1958: Pl. 36: 234
32. Petrie 1932: Pl. 7: 75 = Keel 1997: 197, no. 278
33. Petrie 1933: Pl. 3: 86 = Keel 1997: 257, no. 454
34. Petrie 1933: Pl. 4: 137 = Keel 1997: 275, no. 502
35. Petrie 1934: Pl. 5: 40 = Keel 1997: 307, no. 601
36. Petrie 1934: Pl. 5: 79 = Keel 1997: 321, no. 639
37. Mackay and Murray 1952: Pl. 9: 21 = Keel 1997: 463, no. 1049
38. Mackay and Murray 1952: Pl. 9: 22 = Keel 1997: 463, no. 1050
39. Mackay and Murray 1952: Pl. 9: 30 = Keel 1997: 465, no. 1058
40. Petrie 1934: Pl. 11: 398 = Keel 1997: 429, no. 954
41. Kirkbride 1965: Fig. 298: 17
42. Tufnell 1973: Fig. 2: 99
43. Tufnell 1973: Fig. 2: 104
44. Petrie 1930: Pl. 7: 21
45. Starkey and Harding 1932: Pl. 44: 59
46. Price Williams 1977: Fig. 10: 5
47. Price Williams 1977: Fig. 63: 6

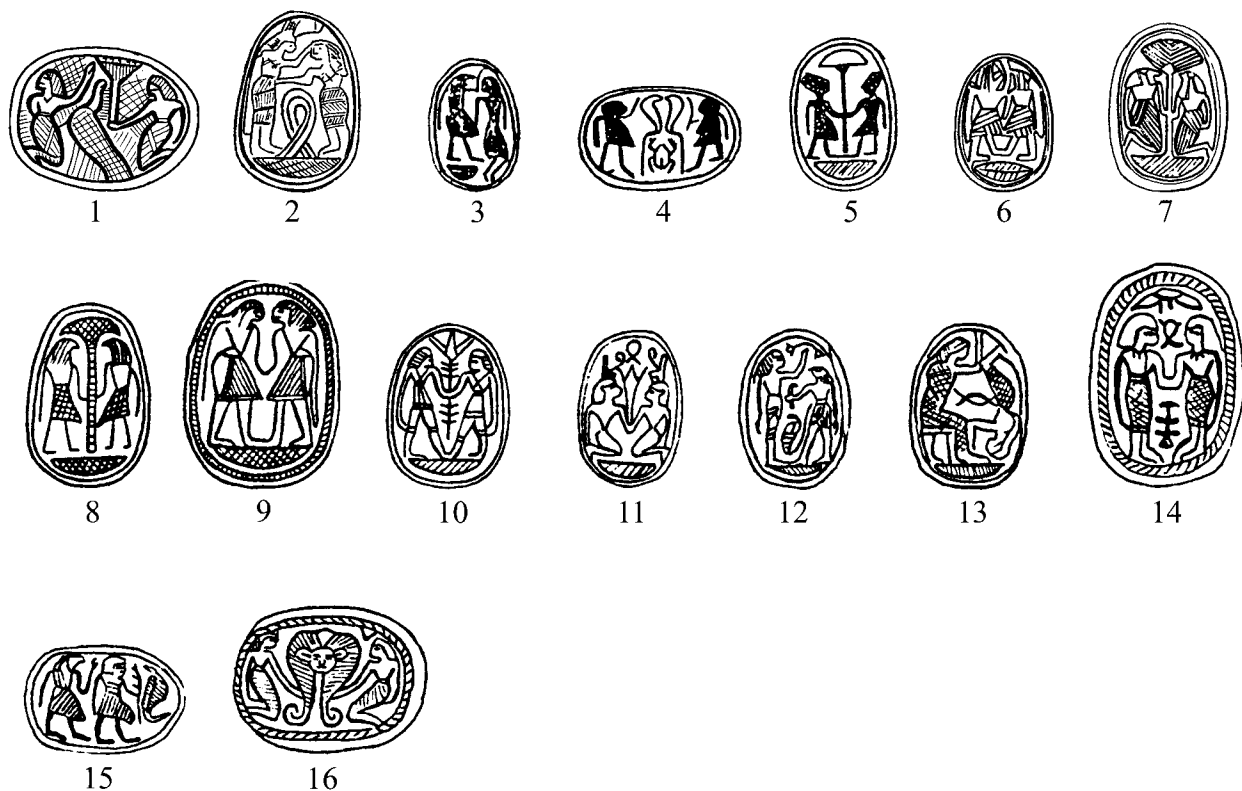


Design class 10B - two or more figures, standing or kneeling



Plate 104

1. Price Williams 1977: Fig. 87: 3
2. Macalister 1912: Pl. 204a: 2
3. Petrie 1931: Pl. 13: 82 = Keel 1997: 131, no. 76
4. Petrie 1931: Pl. 14: 108 = Keel 1997: 139, no. 102
5. Petrie 1931: Pl. 14: 161 = Keel 1997: 157, no. 155
6. Petrie 1933: Pl. 3: 6 = Keel 1997: 231, no. 376
7. Petrie 1933: Pl. 3: 104 = Keel 1997: 263, no. 472
8. Petrie 1934: Pl. 5: 115 = Keel 1997: 333, no. 675
9. Petrie 1934: Pl. 5: 119 = Keel 1997: 335, no. 679
10. Petrie 1934: Pl. 7: 224 = Keel 1997: 371, no. 784
11. Petrie 1934: Pl. 11: 400 = Keel 1997: 429, no. 956
12. Mackay and Murray 1952: Pl. 9: 14 = Keel 1997: 459, no. 1042
13. Mackay and Murray 1952: Pl. 9: 15 = Keel 1997: 459, no. 1043
14. Mackay and Murray 1952: Pl. 9: 17 = Keel 1997: 461, no. 1045
15. Mackay and Murray 1952: Pl. 9: 28 = Keel 1997: 465, no. 1056
16. Mackay and Murray 1952: Pl. 9: 47 = Keel 1997: 471, no. 1073
17. Kirkbride 1965: Fig. 294: 17
18. Kirkbride 1965: Fig. 299: 26
19. Kirkbride 1965: Fig. 301: 9
20. Petrie 1930: Pl. 10: 88
21. Macalister 1912: Pl. 208: 37
22. Tufnell 1958: Pl. 30: 25
23. Tufnell 1958: Pl. 32: 72
24. Tufnell 1958: Pl. 36: 238
25. Petrie 1931: Pl. 13: 74 = Keel 1997: 127, no. 68
26. Petrie 1931: Pl. 14: 107 = Keel 1997: 139, no. 101
27. Keel 1997: 147, no. 125
28. Petrie 1933: Pl. 3: 89 = Keel 1997: 259, no. 457
29. Petrie 1934: Pl. 5: 24 = Keel 1997: 301, no. 585
30. Petrie 1934: Pl. 5: 63 = Keel 1997: 315, no. 624
31. Petrie 1934: Pl. 5: 74 = Keel 1997: 319, no. 634
32. Petrie 1934: Pl. 5: 104 = Keel 1997: 329, no. 664
33. Petrie 1934: Pl. 7: 176 = Keel 1997: 355, no. 736
34. Mackay and Murray 1952: Pl. 9: 40 = Keel 1997: 469, no. 1066
35. Price Williams 1977: Fig. 10: 4
36. Price Williams 1977: Fig. 15: 3
37. Price Williams 1977: Fig. 37: 1
38. Petrie 1931: Pl. 13: 34 = Keel 1997: 115, no. 32
39. Petrie 1931: Pl. 14: 162 = Keel 1997: 157, no. 156
40. Petrie 1933: Pl. 3: 26 = Keel 1997: 237, no. 396



Design class 10C - kneeling figures



Plate 105

1. Petrie 1933: Pl. 3: 79 = Keel 1997: 255, no. 447
2. Petrie 1934: Pl. 5: 46 = Keel 1997: 309, no. 607
3. Petrie 1934: Pl. 5: 64 = Keel 1997: 315, no. 625
4. Petrie 1934: Pl. 9: 336 = Keel 1997: 409, no. 897
5. Petrie 1934: Pl. 11: 471 = Keel 1997: 453, no. 1022
6. Mackay and Murray 1952: Pl. 9: 27 = Keel 1997: 465, no. 1055
7. Mackay and Murray 1952: Pl. 9: 29 = Keel 1997: 465, no. 1057
8. Petrie 1934: Pl. 5: 109 = Schroer 1989: 97, no. 2
9. Schroer 1989: 97, no. 3
10. Schroer 1989: 97, no. 4
11. Giveon 1985: 115, no. 16 = Schroer 1989: 97, no. 6
12. Starkey and Harding 1932: Pl. 73: 12 = Schroer 1989: 97, no. 11
13. Schroer 1989: 97, no. 13
14. Schroer 1989: 97, no. 9
15. Tufnell 1958: Pl. 30: 47 = Schroer 1989: 98, no. 16
16. Schroer 1989: 98, no. 17
17. Schroer 1989: 97, no. 5
18. Tufnell 1958: Pl. 32: 99 = Schroer 1989: 98, no. 19
19. Tufnell 1958: Pl. 30: 11 = Schroer 1989: 98, no. 20
20. Schroer 1989: 98, no. 21
21. Petrie 1930: Pl. 7: 47 = Schroer 1989: 98, no. 22
22. Petrie 1930: Pl. 10: 103 = Schroer 1989: 98, no. 23
23. Petrie 1933: Pl. 4: 138 = Schroer 1989: 98, no. 24
24. Schroer 1989: 98, no. 27
25. Schroer 1989: 99, no. 32
26. Schroer 1989: 99, no. 33
27. Petrie 1930: Pl. 22: 225 = Schroer 1989: 99, no. 34
28. Schroer 1989: 99, no. 40
29. Kirkbride 1965: Fig. 296: 9
30. Kirkbride 1965: Fig. 299: 23
31. Petrie 1930: Pl. 7: 43
32. Tufnell 1958: Pl. 30: 15
33. Tufnell 1958: Pl. 34: 162
34. Tufnell 1973: Fig. 3: 116
35. Petrie 1931: Pl. 13: 56 = Keel 1997: 121, no. 50
36. Petrie 1931: Pl. 13: 57 = Keel 1997: 121, no. 51
37. Petrie 1932: Pl. 7: 79 = Keel 1997: 197, no. 282
38. Petrie 1932: Pl. 8: 136 = Keel 1997: 217, no. 339
39. Petrie 1933: Pl. 3: 39 = Keel 1997: 243, no. 408
40. Petrie 1933: Pl. 3: 108 = Keel 1997: 265, no. 476
41. Keel 1997: 279, no. 517
42. Petrie 1934: Pl. 5: 15 = Keel 1997: 299, no. 576
43. Petrie 1934: Pl. 5: 38 = Keel 1997: 307, no. 599
44. Petrie 1934: Pl. 7: 155 = Keel 1997: 347, no. 715
45. Petrie 1934: Pl. 7: 182 = Keel 1997: 357, no. 742
46. Petrie 1934: Pl. 7: 217 = Keel 1997: 369, no. 777



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Design class 10D1 - goddess standing, nude



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Design class 10D2 - "Hathor" symbol



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Plate 106

1. Petrie 1934: Pl. 11: 409 = Keel 1997: 433, no. 965
2. Petrie 1934: Pl. 11: 410 = Keel 1997: 433, no. 966
3. Petrie 1934: Pl. 11: 411 = Keel 1997: 433, no. 967
4. Mackay and Murray 1952: Pl. 9: 47 = Keel 1997: 471, no. 1073
5. Mackay and Murray 1952: Pl. 9: 48 = Keel 1997: 471, no. 1074
6. Mackay and Murray 1952: Pl. 9: 49 = Keel 1997: 473, no. 1075
7. Mackay and Murray 1952: Pl. 9: 50 = Keel 1997: 473, no. 1076
8. Schroer 1989: 151, Fig. 085
9. Schroer 1989: 151, Fig. 093
10. Schroer 1989: 151, Fig. 095
11. Schroer 1989: 141, no. 60
12. Schroer 1989: 151, Fig. 088
13. Schroer 1989: 151, Fig. 092
14. Tufnell 1958: Pl. 30: 64
15. Petrie 1930: Pl. 22: 235
16. Macalister 1912: Pl. 202a: 7
17. Mackay and Murray 1952: Pl. 9: 15 = Keel 1997: 459, no. 1043
18. Giveon 1988: 97, no. 112
19. Keel 1997: 115, no. 28
20. Keel 1997: 121, no. 49
21. Keel 1997: 121, no. 50
22. Keel 1997: 123, no. 55
23. Keel 1997: 131, no. 76
24. Keel 1997: 141, no. 108
25. Keel 1997: 143, no. 112
26. Keel 1997: 145, no. 118
27. Keel 1997: 159, no. 158



Design class 10E - human figures, enthroned



Dominant features of late Canaanite scarabs

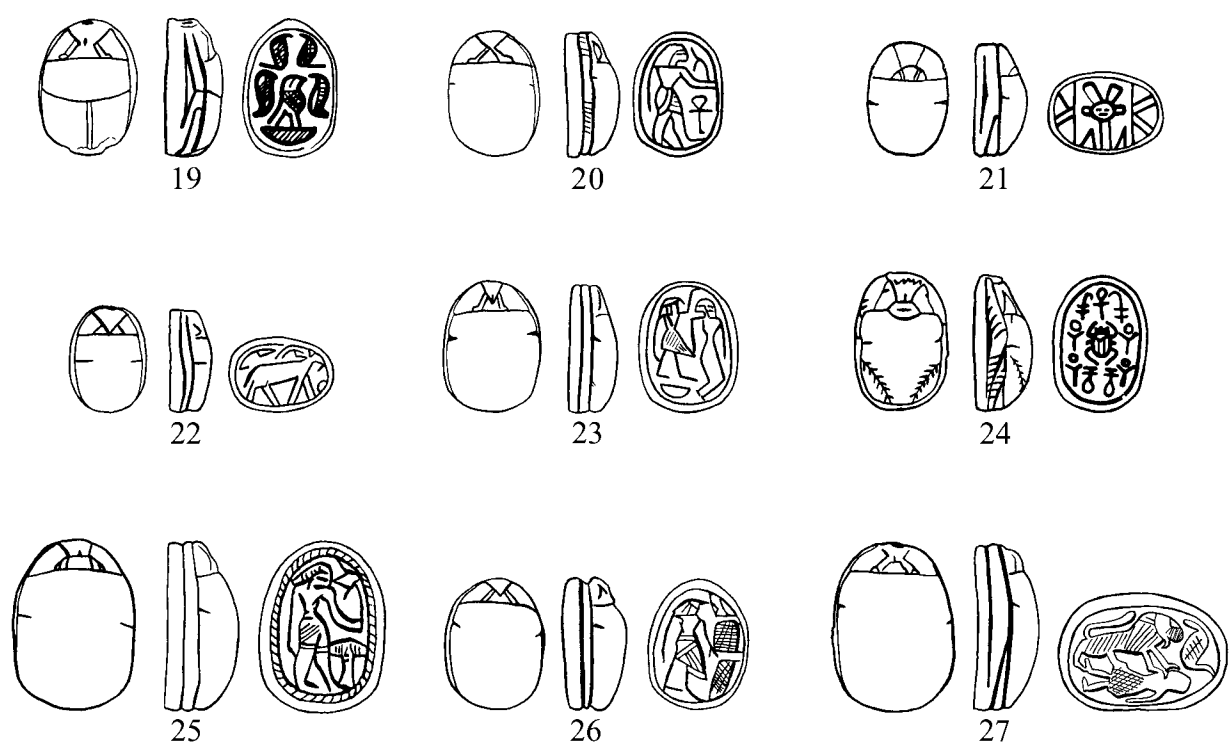
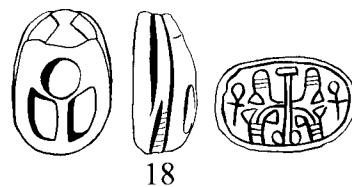
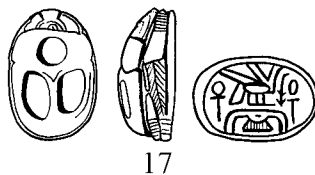
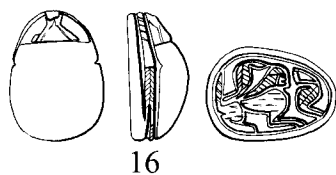
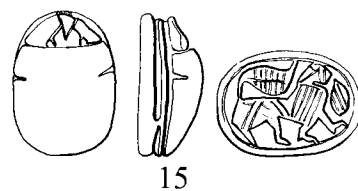
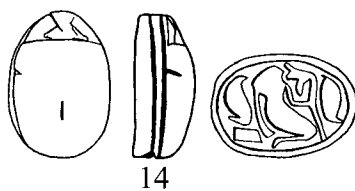
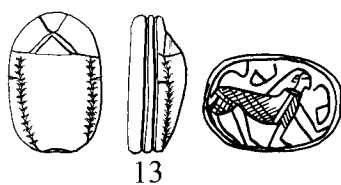
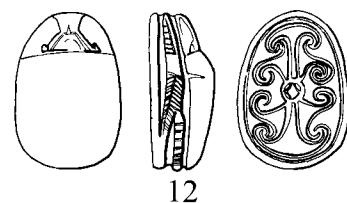
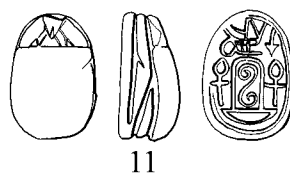
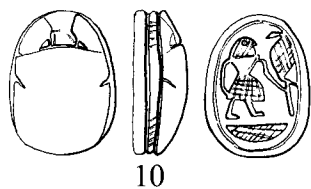
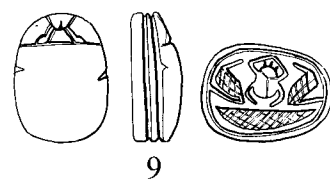
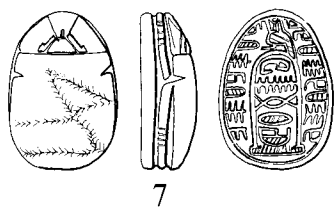
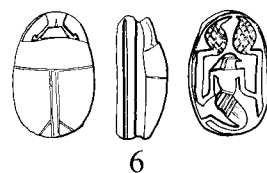
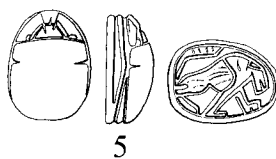
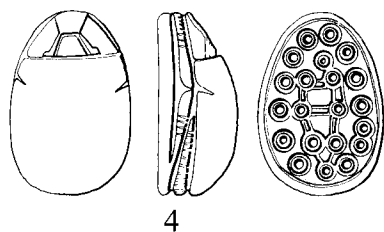
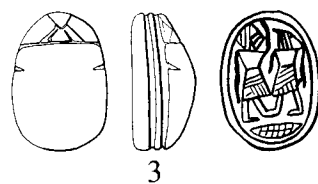
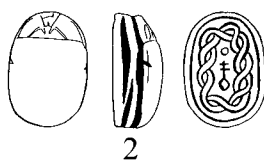
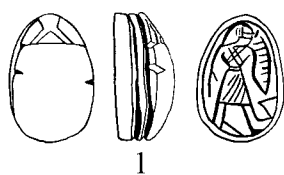


Plate 107

1. Keel 1997: 213, no. 328
2. Keel 1997: 221, no. 347
3. Keel 1997: 231, no. 376
4. Keel 1997: 231, no. 380
5. Keel 1997: 233, no. 383
6. Keel 1997: 235, no. 389
7. Keel 1997: 235, no. 390
8. Keel 1997: 239, no. 400
9. Keel 1997: 239, no. 401
10. Keel 1997: 257, no. 454
11. Keel 1997: 259, no. 459
12. Keel 1997: 275, no. 505
13. Keel 1997: 277, no. 510
14. Keel 1997: 277, no. 512
15. Keel 1997: 283, no. 527
16. Keel 1997: 371, no. 783
17. Fisher and Keel 1995: Fig. 4b
18. Fisher and Keel 1995: Fig. 4c

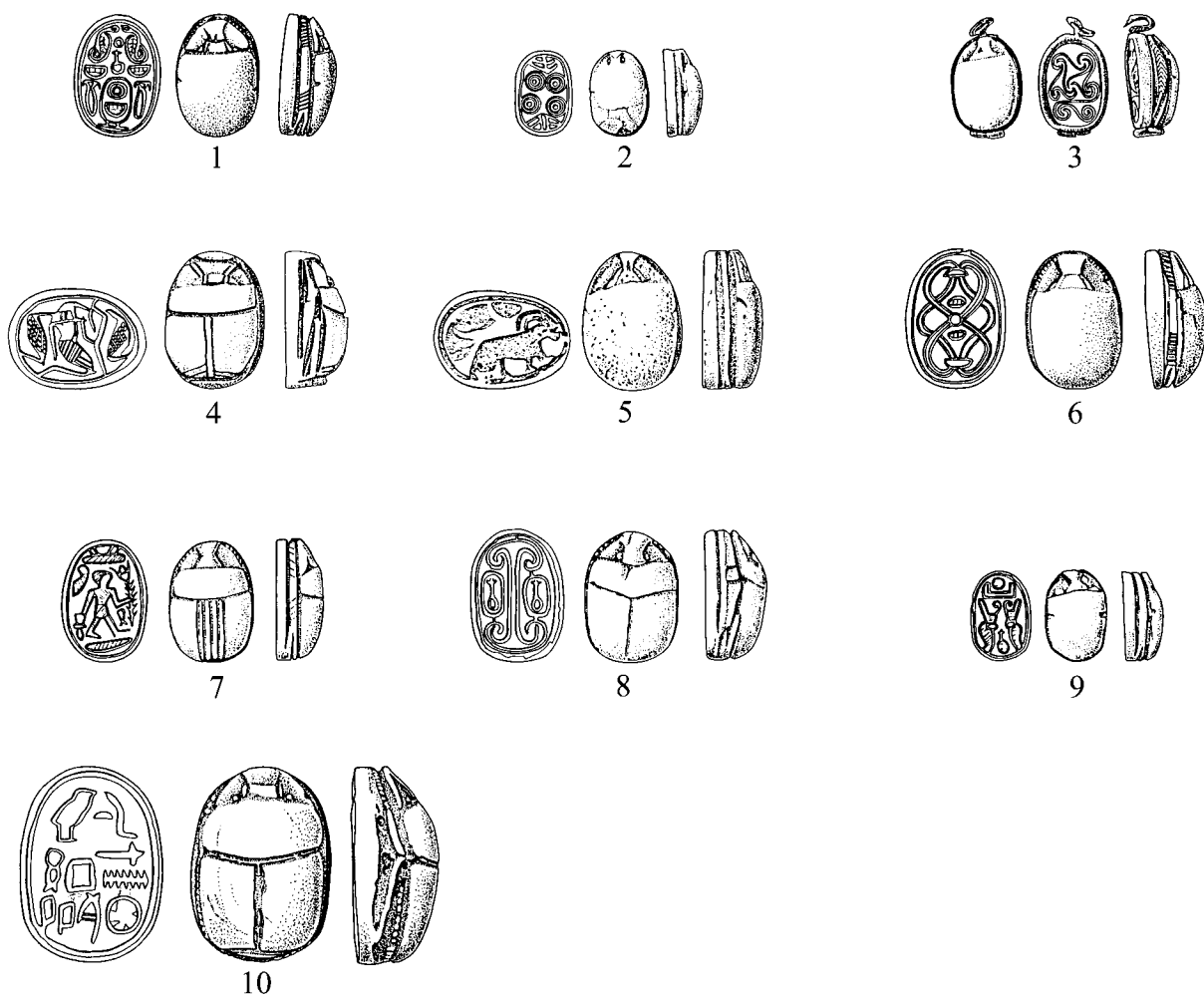


Appendix Plates

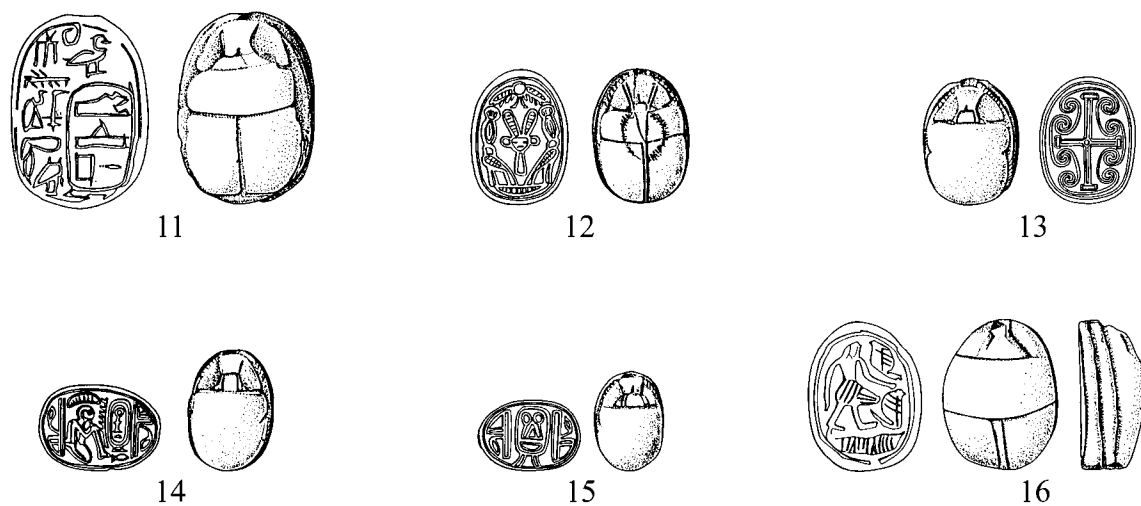
Appendix Plate 1

1. Tell el-Maskhuta M79-579
2. Tell el-Maskhuta M83-97
3. Tell el-Maskhuta M83-472
4. Tell el-Maskhuta M83-473
5. Tell el-Maskhuta M83-474
6. Tell el-Maskhuta M83-479
7. Tell el-Maskhuta M83-480
8. Tell el-Maskhuta M83-486
9. Tell el-Maskhuta M83-576
10. Tell el-Maskhuta M83-494
11. Tell el-Maskhuta M79-793
12. Tell el-Maskhuta M79-794
13. Tell el-Maskhuta M79-829
14. Tell el-Maskhuta M79-830
15. Tell el-Maskhuta M79-832
16. Tell el-Maskhuta M83-183

Scarabs from MBIIB contexts - early phase



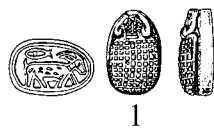
Scarabs from MBIIB contexts - late phase



Appendix Plate 2

1. Tell el-Maskhuta M83-462
2. Tell el-Maskhuta M83-488
3. Tell el-Maskhuta M83-497
4. Tell el-Maskhuta M83-639
5. Tell el-Maskhuta M79-826
6. Tell el-Maskhuta M81-453
7. Tell el-Maskhuta M81-457
8. Tell el-Maskhuta M81-455
9. Tell el-Maskhuta M81-456
10. Tell el-Maskhuta M81-460

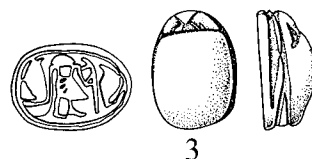
Scarabs from MBIIB contexts - late phase



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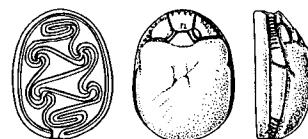
Scarabs from MBIIB contexts



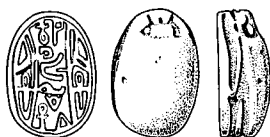
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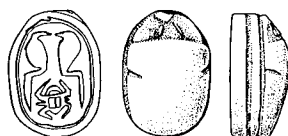


8

Middle Bronze Age scarabs from late contexts



9



10

ORBIS BIBLICUS ET ORIENTALIS

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Summary

The present study deals with relations between Egypt and the Levant during the Second Intermediate Period, based primarily on contemporary scarabs from both regions. The potential contribution of scarabs for the historical reconstruction of the Second Intermediate Period, especially with regard to Egyptian/Levantine relations, has long been recognized. Yet the controversy over scarab typologies ruled out scarabs as a reliable historical source. This study proposes a new typology of scarabs of the first half of the second millennium BCE, which is now feasible owing to recent studies of ceramic assemblages from Egypt and the Levant. Based on these studies one can determine the relative and absolute dates of deposits in which scarabs and scarab impressions have been found in both regions, and substantiate the correspondence of the Second Intermediate Period in Egypt with the Middle Bronze Age IIB in the Levant.

The principal methodological difference between the present study and previous scarab studies is its treatment of the Egyptian and Palestinian series as two separate groups. The geographical classification of the large corpus of scarabs, which previously had been dealt with as one entity, allowed for a systematic differentiation between Egyptian and Canaanite scarabs of this period and the establishment of separate stylistic and chronological typologies for each group. The historical conclusions presented in this study confirm the significance of scarabs as a primary source of information for reconstructing the history of the Second Intermediate Period in Egypt and the Levant.